Lancaster County Hazard Mitigation Plan

2025 Update

Appendices





July 2025

Prepared by:
Tetra Tech, Inc.
2400 Park Drive, Suite I
Harrisburg, PA 17110

AUTHORITIES AND REFERENCES

This section lists references used to prepare the Lancaster County HMP. Existing plans and studies were reviewed and integrated into the HMP. Each reference is cited where its information or data was used in developing the HMP. Technical data and information, such as the locations of critical facilities and geographic information systems (GIS) data on hazard areas, was incorporated into the vulnerability assessment in each of the hazard profiles in Section 4.3. Section 4.4 details how GIS analysis, including HAZUS-MH, was performed and incorporated.

1. AARP. 2021. *Top Scams Targeting Older Americans in 2021.* April 1. Accessed August 4, 2023. https://www.aarp.org/money/scams-fraud/info-2021/schemes-targeting-older-adults.html.

2. Akleylek, Sedat. 2024. *Natinal Libary of Medicine: Cyberterrorism as a global threat: a review on repercussions and countermeasures.* January 15. Accessed August 16, 2024. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10803091/.

3. Andrew, Rick. 2021. *Flooding's Impact on Public Water Supplies, Sanitation.* December 09. Accessed February 21, 2023. https://www.waterworld.com/water-utility-management/article/14211783/floodings-impact-on-public-water-supplies.

4. ASCE. 2024. *ASCE Hazard Tool.* American Society of Civil Engineers. August. https://ascehazardtool.org/.

5. Associated Press. 2024. *Facts About Hail, the Icy Precipitation Often Encountered in Spring and Summer.* March 14. https://www.usnews.com/news/us/articles/2024-03-14/facts-about-hail-the-icy-precipitation-often-encountered-in-spring-and-summer#:~:text=Hail%20causes%20about%20%241%20billion%20damage%20to%20crops,in%20the%20U.S.%2C%20causing%20about%20%242%20billion%20d.

6. Association of State Dam Safety Officials. 2021. *Dam Failures and Incidents.* Accessed 2023. https://damsafety.org/dam-failures.

7. —. 2023. *Dams 101.* https://damsafety.org/dams101.

8. —. 2014. *OVERTOPPING PROTECTION FOR DAMS – A TECHNICAL MANUAL OVERVIEW.* May 13. Accessed September 25, 2023. https://damfailures.org/wp-content/uploads/2019/08/Overtopping-Protection-for-Dams-A-Technical-Manual-Overview.pdf.

9. Avraam, Charalampos, Luis Ceferino, and Yury Dvorkin. 2023. "Operational and economy-wide impacts of compound cyber-attacks and extreme weather events on electric power networks." *Applied Energy.* https://www.sciencedirect.com/science/article/abs/pii/S0306261923009418.

10. Baker, R.E., A.S. Mahmud, I.F. Miller, M. Rajeev, F. Rasambainarivo, B.L. Rice, S. Takashi, et al. 2021. "Infectious disease in an era of global change." *Nature Reviews Microbiology*, October 13: 193-205. https://www.nature.com/articles/s41579-021-00639-z.

11. Basso, Marta , Marcos Mateus, Tiago B Ramos, and Diana C.S. Vieira. 2021. *Potential Post Fire Impacts on a Water Supply Reservoir: An Integrated Watershed-Reservoir Approach.* June. Accessed September 2023. https://www.frontiersin.org/articles/10.3389/fenvs.2021.684703/full#:~:text=The%20removal%20of%20vegetation%20and%20consequent%20runoff%20increase,damaging%20the%20aquatic%20ecosystem%20and%20threatening%20human%20health.

12. Belvederesi, et al . 2018. *Statistical analysis of environmental consequences of hazardous liquid pipeline accidents.* https://www.sciencedirect.com/science/article/pii/S2405844018356020.

13. Bilsen, Johan, and Jutta Lindert. 2018. "7.M. Workshop: The impact of terrorist attacks on vulnerable groups." *European Journal of Public Health*, November 21. https://academic.oup.com/eurpub/article/28/suppl_4/cky213.631/5191962.

14. CDC. 2010. *2009 H1N1 Flu In The News.* May. Accessed September 2023. https://www.cdc.gov/h1n1flu/in_the_news/2009H1N1_qa.htm#:~:text=With%202009%20H1N1%2C%20about%2090%25%20of%20estimated%20hospitalizations,occurred%20in%20people%20younger%20than%2065%20years%20old.

15. —. 2010. *CDC Estimates of 2009 H1N1 Influenza Cases.* Accessed September 2023. https://www.cdc.gov/h1n1flu/estimates_2009_h1n1.htm.

16. —. 2022. *Climate Change and Infectious Diseases* . August. Accessed September 2023. https://www.cdc.gov/ncezid/what-we-do/climate-change-and-infectious-diseases/index.html#:~:text=Mild%20winters%2C%20early%20springs%2C%20and%20warmer%20temperatures%20are,and%20expand%20their%20habitats%20throughout%20the%20United%20States.

17. —. 2024. *COVID Data Tracker.* November 30. Accessed December 12, 2024. https://covid.cdc.gov/covid-data-tracker/#trends_totaldeaths_select_00.

18. —. 2021. *COVID-19.* Accessed 2021. https://www.cdc.gov/coronavirus/2019-ncov/.

19. —. n.d. *FluView.* Accessed September 2023. https://www.cdc.gov/flu/weekly/fluviewinteractive.htm.

20. —. 2020. *Health Implications of Drought.* January. Accessed September 2023. https://www.cdc.gov/nceh/drought/implications.htm.

21. —. 2024. *https://www.cdc.gov/flu/php/surveillance/past-seasons.html.* December 5. Accessed December 12, 2024. https://www.cdc.gov/flu/php/surveillance/past-seasons.html.

22. —. 2023. *Influenza Type A Viruses.* April. Accessed September 2023. https://www.cdc.gov/flu/avianflu/influenza-a-virus-subtypes.htm.

23. —. 2024. *In-Season Severity Assessment.* December 6. Accessed December 12, 2024. https://www.cdc.gov/flu/php/surveillance/in-season-severity.html.

24. —. 2020. *Mold After a Disaster.* July 28. Accessed June 13, 2023. https://www.cdc.gov/disasters/mold/index.html.

25. —. n.d. *Pandemics and Pandemic Threats since 1900.* Accessed September 2023. https://www2.nau.edu/gaud/bio302/content/pndmic.htm.

26. —. 2022. *Reduce Radon Levels in Your Home.* Centers for Disease Control and Prevention. January 6. Accessed October 8, 2023. https://www.cdc.gov/radon/radon-action.html.

27. —. 2022. *Symptoms of COVID-19.* October. Accessed September 2023. https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html.

28. —. 2016. *The Continuum of Pandemic Phases.* Accessed September 2023. https://www.cdc.gov/flu/pandemic-resources/planning-preparedness/global-planning-508.html.

29. —. 2009. *WHO Pandemic Declaration* . Accessed September 2023. https://www.cdc.gov/h1n1flu/who/.

30. Center for Climate and Energy Solutions. n.d. *Tornadoes and Climate Change.* Accessed September 2023. https://www.c2es.org/content/tornadoes-and-climate-change/.

31. Center for Rural PA. 2023. "Population Projections by Gender and Age, 2020 to 2050." Pennsylvania State Data Center for Rural Pennsylvania; A Legislative Agency of the Pennsylvania General Assembly, September 5. Accessed May 6, 2024. https://www.rural.pa.gov/download.cfm?file=Resources/excel/Population%20Projections%20by%20Gender%20and%20Age%202020%20to%202050.xlsx.

32. Center for Rural Pennsylvania. 2014. *Population projections.* March 5. Accessed September 25, 2023. https://www.rural.pa.gov/download.cfm?file=Resources/excel/Pennsylvania_Projections_2010-2040.xlsx.

33. Centers for Disease Control and Prevention . 2021. *Culture and Language.* December 9. https://www.cdc.gov/healthliteracy/culture.html.

34. Centers for Disease Control and Prevention. 2020. *Disability and Health Overview.* September 16. https://www.cdc.gov/ncbddd/disabilityandhealth/disability.html.

35. CISA. 2019. *National Emergency Communications Plan.* September. Accessed 2022. https://www.cisa.gov/sites/default/files/publications/19_0924_CISA_ECD-NECP-2019_1_0.pdf.

36. Cochran, Thomas, and Robert Norris. 2024. *Encyclopaedia Britannica: Nuclear Weapon.* August 11. Accessed August 16, 2024. https://www.britannica.com/technology/nuclear-weapon.

37. Columbia University. 2021. *Epidemic, Endemic, Pandemic: What are the Differences?* February. Accessed September 2023. https://www.publichealth.columbia.edu/news/epidemic-endemic-pandemic-what-are-differences.

38. Commonwealth of Pennsylvania. 2011. *25 Pa. Code § 105.91. Classification of dams and reservoirs.* January 7. Accessed September 25, 2023. https://www.pacodeandbulletin.gov/Display/pacode?file=/secure/pacode/data/025/chapter105/s105.91.html#:~:text=In%20approving%20a%20classification%2C%20the%20Department%20will%20consider%2C,which%20may%20be%20affected%20by%20a%20dam%20failure.

39. —. 1980. "Chapter 105 Dam Safety and Water Management." *Pennsylvania Code 25.* https://files.dep.state.pa.us/publicparticipation/advisory%20committees/lib/advcommittees/wrac/chapter_105_dam_safety_regs.pdf.

40. —. 2021. *Pennsylvania Climate Impacts Assessment 2021.* May. Accessed September 25, 2023. http://www.depgreenport.state.pa.us/elibrary/GetDocument?docId=3667348&DocName=PENNSYLVANIA%20CLIMATE%20IMPACTS%20ASSESSMENT%202021.PDF%20%20%3cspan%20style%3D%22color:green%3b%22%3e%3c/span%3e%20%3cspan%20style%3D%22color:blue%3b%22%3e%28NEW%29%3c/span%3.

41. Congressional Research Service. 2004. *The Economic Impact of Cyber-Attacks.* April 1. Accessed July 27, 2023. https://sgp.fas.org/crs/misc/RL32331.pdf.

42. Cybersecurity and Infrastructure Security Agency. n.d. *Critical Infrastructure Sectors.* Accessed August 25, 2023. https://www.cisa.gov/topics/critical-infrastructure-security-and-resilience/critical-infrastructure-sectors.

43. DCNR. n.d. *Mine Subsidence, Loss & Coverage.* Accessed September 26, 2023. https://www.dep.pa.gov/Citizens/MSI/Pages/Mine-Subsidence-Loss-and-Coverage.aspx.

44. —. 2023. *PaGEODE - Pennsylvania GEOlogic Data Exploration.* Pennsylvania Department of Conservation and Natural Resources. Accessed September 26, 2023. https://www.gis.dcnr.state.pa.us/pageode/.

45. —. n.d. *Sinkholes.* Accessed September 26, 2023. https://www.dcnr.pa.gov/Geology/GeologicHazards/Sinkholes/Pages/default.aspx#:~:text=Sinkholes%2C%20along%20with%20caves%2C%20are,bedrock%20(limestone%20and%20dolostone).

46. DEA Philadelphia Division and University of Pittsburgh. 2017. *Analysis of Overdose Deaths in Pennsylvania.* July. Accessed 2024. https://www.dea.gov/sites/default/files/docs/DEA-PHL-DIR-034-17%2520Analysis%2520of%2520Overdose%2520Deaths%2520in%2520Pennsylvania%25202016.pdf.

47. Denning, Dorothy. 2000. "Cyberterrorism: Testimony before the Special Oversight Panel on Terrorism Committee on Armed Services US House of Representatives." *Focus on Terrorism*, 71-76.

48. Department of Defense. 2021. *Climate Risk Analysis.* October. Accessed August 6, 2024. https://media.defense.gov/2021/Oct/21/2002877353/-1/-1/0/DOD-CLIMATE-RISK-ANALYSIS-FINAL.PDF.

49. Department of Homeland Security. 2024. *2025 Homeland Threat Assessment.* October 9. Accessed December 11, 2024. https://www.dhs.gov/sites/default/files/2024-10/24_0930_ia_24-320-ia-publication-2025-hta-final-30sep24-508.pdf.

50. DOT, U.S. Department of Transportation. 2023. *Pipeline and Hazerdous Materials Safety Administration.* Accessed May 2, 2023. https://www.phmsa.dot.gov/.

51. Encyclopaedia Britannica. 2024. *Encyclopaedia Britannica: Assasination.* August 1. Accessed August 16, 2024. https://www.britannica.com/topic/assassination.

52. —. 2024. *Encyclopaedia Britannica: bomb.* July 26. Accessed August 16, 2024. https://www.britannica.com/technology/bomb-weapon.

53. —. 2024. *Encyclopaedia Britannica: Kidnapping.* August 5. Accessed August 16, 2024. https://www.britannica.com/topic/kidnapping.

54. EPA. 2023. *Climate Change and the Health of Socially Vulnerable People.* Environmental Protection Agency. Accessed 2023. https://www.epa.gov/climateimpacts/climate-change-and-health-socially-vulnerable-people.

55. —. 2023. *Climate Change Indicators: Weather and Climate.* July. Accessed September 2023. https://www.epa.gov/climate-indicators/weather-climate.

56. —. 2022. *Health Risk of Radon.* https://www.epa.gov/radon/health-risk-radon.

57. —. 2024. *Radiological Agents.* June 28. Accessed August 16, 2024. https://www.epa.gov/emergency-response/radiological-agents#:~:text=Radiological%20agents%20are%20any%20radioactive%20materials%20that%2C%20when,by%20exposing%20members%20of%20the%20public%20to%20radiation.

58. —. 2024. *Radionuclide Basics: Cesium-137.* February 5. Accessed September 4, 2024. https://www.epa.gov/radiation/radionuclide-basics-cesium-137.

59. —. 2021. *Toxics Release Inventory (TRI) Program.* U.S. Environmental Protection Agency. Accessed October 9, 2023. https://www.epa.gov/toxics-release-inventory-tri-program/find-understand-and-use-tri.

60. —. 2022. *What are the health effects from exposure to radon?* Environmental Protection Agency. November 10. Accessed October 8, 2023. https://www.epa.gov/radon/what-are-health-effects-exposure-radon#:~:text=There%20is%20no%20evidence%20that%20other%20respiratory%20diseases%2C,risk%20of%20radon%20induced%20lung%20cancer%20than%20adults.

61. FBI. 2024. *Internet Crime Report 2023.* March 25. Accessed August 6, 2024. https://www.ic3.gov/Media/PDF/AnnualReport/2023_IC3Report.pdf.

62. FEMA. 1997. *Atmospheric Hazard.* FEMA. http://www.fema.gov/media-library-data/20130726-1545-20490-1407/mhira_n1.txt.

63. —. 2019. *Community Lifelines Implementation Toolkit; Comprehensive information and resources for implementing lifelines during incident response. Version 2.0.* November. Accessed March 2023. https://www.fema.gov/sites/default/files/2020-05/CommunityLifelinesToolkit2.0v2.pdf.

64. —. 2023. *Dam Safety.* September 22. Accessed September 25, 2023. https://www.fema.gov/emergency-managers/risk-management/dam-safety#:~:text=The%20National%20Dam%20Safety%20Program%20is%20a%20partnership,property%2C%20and%20the%20environment%20from%20dam%20related%20hazards.

65. —. 2023. *Declared Disasters.* Accessed September 2023. https://www.fema.gov/disaster/declarations.

66. FEMA. 2001. *Defining an Earthquake.* Washington DC: FEMA. http://www.fema.gov/media-library-data/20130726-1504-20490-4864/fema_159_units.pdf.

67. —. 2023. *Disaster Declarations for States and Counties.* Accessed September 25, 2023. https://www.fema.gov/data-visualization/disaster-declarations-states-and-counties.

68. —. 2024. *Disaster Declarations for States and Counties.* Accessed September 11, 2024. https://www.fema.gov/data-visualization/disaster-declarations-states-and-counties.

69. —. 2004. *Federal Guidelines for Dam Safety.* Federal Emergency Management Agency. https://www.fema.gov/sites/default/files/2020-08/fema_dam-safety_P-93.pdf.

70. —. 2018. *Flood Insurance Study - Lancaster County, PA.* February 19. Accessed September 21, 2023. https://map1.msc.fema.gov/data/42/S/PDF/42071CV001B.pdf?LOC=3ce5e5eebe154349f6bc8c5e63c5d7d7.

71. —. 2020. *Flood Insurance Study Status.* July 13. Accessed September 26, 2023. https://www.fema.gov/flood-maps/change-your-flood-zone/status/flood-insurance-study.

72. —. 2020. *Flood Zones.* https://www.fema.gov/glossary/flood-zones.

73. —. 2022. *Floodwater After a Disaster or Emergency.* October 04. Accessed June 13, 2023. https://www.cdc.gov/disasters/floods/floodsafety.html.

74. —. 2019. *Guidance for Flood Risk Analysis and Mapping.* November. Accessed July 7, 2023. https://www.fema.gov/sites/default/files/2020-02/FloodwayAnalysis_and_Mapping_Nov_2019.pdf.

75. —. 2022. *Hazus Earthquake Model User Guidance.* April. Accessed August 28, 2023. https://www.fema.gov/sites/default/files/documents/fema-hazus-5.1-earthquake-model-user-guidance.pdf.

76. FEMA. 2018. *Ice-Jam Analyses and Mapping.* Guidance for Flood Risk , FEMA. https://www.fema.gov/sites/default/files/2020-02/Ice_Jam_Guidance_Feb_2018.pdf.

77. —. 2023. *Local Mitigation Planning Handbook.* May. Accessed August 26, 2024. https://www.fema.gov/sites/default/files/documents/fema_local-mitigation-planning-handbook_052023.pdf.

78. —. 2002. *Managing the Emergency Consequences of Terrorist Incidents.* July. Accessed 2022. https://www.fema.gov/pdf/plan/managingemerconseq.pdf.

79. —. 2024. *Participation in the NFIP.* January 8. Accessed August 23, 2024. https://www.fema.gov/glossary/participation-nfip.

80. FEMA. 2020. *Rehabilitation of High Hazard Potential Dams Grant Program Guidance.* FP 104-008-7, Washington, D.C.: FEMA.

81. —. 2019. *Riverine Flooding.* Accessed January 03, 2023. https://hazards.fema.gov/nri/riverine-flooding.

82. —. 2023. *Seismic Building Codes.* May 23. Accessed September 25, 2023. https://www.fema.gov/emergency-managers/risk-management/earthquake/seismic-building-codes.

83. —. 2020. *Types of Flooding.* October. Accessed September 26, 2023. https://emilms.fema.gov/IS322/FM0102020text.html.

84. FERC. 2020. *Dam Safety Program.* July 10. Accessed September 25, 2023. https://cms.ferc.gov/industries-data/hydropower/dam-safety-and-inspections/dam-safety-program.

85. Food and Agriculture Organization of the United Nations. 2019. *Proactive drought management.* November. Accessed August 28, 2023. https://www.fao.org/climate-smart-agriculture/knowledge/practices/drought/en/.

86. FOX43. 2021. *Millersville University cyber attack did expose personal information for some people.* March 18. Accessed October 30, 2024. https://www.fox43.com/article/news/local/personal-information-was-exposed-in-millersville-cyber-attack/521-ac5d9962-18fd-49cf-b555-a2c64d37f6bd.

87. FWS. 2021. *What is an aquatic invasive species?* U.S. Fish and Wildlife Service. August 3. Accessed October 8, 2023. https://www.fws.gov/story/what-aquatic-invasive-species.

88. Gibbons, Robert D.; Olfson, Mark; Saulsberry, Loren. 2024. "Social Vulnerability and Prevalence and Treatment for Mental Health and Substance Use Disorders." *JAMA Psychiatry*, July 24: 976-984. https://jamanetwork.com/journals/jamapsychiatry/article-abstract/2821371.

89. Goodwin, Jeff. 2019. *Oxford Academic: The Cause of Terrorism.* April 4. Accessed 2024. https://academic.oup.com/edited-volume/28267/chapter-abstract/213421204?redirectedFrom=fulltext.

90. Harmon, Katherine. 2010. *Climate change will impact infectious diseases worldwide, but questions remain as to how.* March. Accessed September 2023. https://blogs.scientificamerican.com/observations/climate-change-will-impact-infectious-diseases-worldwide-but-questions-remain-as-to-how/.

91. Harris, T. 2008. *How Floods Work.* http://science.howstuffworks.com/flood.htm.

92. Homeland Security Council. 2006. *National Strategy for Pandemic Influenza: Implementation Plan.* May. Accessed August 25, 2023. https://www.cdc.gov/flu/pandemic-resources/pdf/pandemic-influenza-implementation.pdf.

93. IBM. 2022. *What is a cyberattack?* Accessed June 15, 2023. https://www.ibm.com/topics/cyber-attack.

94. ICAO. 1994. *International Investigation Standards.* October 11. Accessed September 29, 2023. http://www.iprr.org/manuals/Annex13.html.

95. Jenkins, John Philip. 2024. *Encyclopaedia Britannica: Hijacking* . August 9. Accessed August 16, 2024. https://www.britannica.com/topic/hijacking.

96. Lancaster County Conservation District. 2018. *LANCASTER COUNTY WATERSHED BASICS.* January 24. Accessed September 25, 2023. https://lancasterwatersheds.org/wp-content/uploads/50591-Watershed-Basics-web.pdf.

97. Lancaster County Joining Forces. 2023. *Lancaster County Overdose Fatality Review.* Accessed 2024. https://www.lancasterjoiningforces.org/wp-content/uploads/2024/02/Annual-Report-2023-FINAL.pdf.

98. —. 2024. *Working together against the overdose epidemic.* Accessed 2024. https://www.lancasterjoiningforces.org/.

99. Lancaster County Planning Commission. 2011. *Pennsylvania Native Trees and Shrubs.* Accessed September 21, 2023. https://lancastercountyplanning.org/DocumentCenter/View/156/Pennsylvania-Native-Trees-and-Shrubs#:~:text=Greenscapes%2Can%20element%20of%20the%20Lancaster%20County%20Comprehensive%20Plan%2C,the%20natural%20landscape%20to%20accommodate%20a%20growing%20popu.

100. Lancaster County Planning. 2018. *places2040.* October. Accessed August 23, 2024. https://lancastercountyplanning.org/DocumentCenter/View/1058/Low-Res-for-Sharing?bidId=.

101. Lancaster County Watersheds. n.d. *Watersheds of Lancaster County, Pennsylvania.* Accessed September 25, 2023. https://lancasterwatersheds.org/our-watersheds/.

102. Lancaster Farmland Trust. 2021. *State of Farmland Preservation in Lancaster County.* June. Accessed September 21, 2023. https://issuu.com/lancasterfarmlandtrust/docs/sfp_report_v16.

103. LCEMD. 2019. *2019 Hazard Mitigation Plan.* https://www.co.lancaster.pa.us/DocumentCenter/View/15154/2019-Lancaster-HMP-Final---Complete-Plan.

104. LCSN. 2014. *About LCSN.* January 1. Accessed September 25, 2023. https://www.ldeo.columbia.edu/LCSN/intro.php.

105. LCWC. 2024. *Annual Reports.* Lancaster County-Wide Communications. Accessed 2024. https://66.216.164.4/public-resources/annual-reports.

106. LNPLancasterOnline. 2015. https://lancasteronline.com/news/local/first-dreaded-emerald-ash-borer-beetle-found-in-lancaster-county/article_29cfa722-03da-11e5-84f5-6b6757fbc50e.html#:~:text=The%20dreaded%20emerald%20ash%20borer%20has%20made%20its,collected%20in%20Mount%20Joy%20Towns.

107. NASA. 2004. *Retreating Glaciers Spur Alaskan Earthquakes.* August 2. Accessed September 25, 2023. https://www.nasa.gov/vision/earth/environment/glacier_quakes.html.

108. NASDAQ. 2020. *New McAfee Report Estimates Global Cybercrime Losses to Exceed $1 Trillion.* December 7. Accessed August 6, 2024. https://www.nasdaq.com/press-release/new-mcafee-report-estimates-global-cybercrime-losses-to-exceed-%241-trillion-2020-12-06.

109. National Cancer Institute. 2022. *Accidents at Nuclear Power Plants and Cancer Risk.* May 12. Accessed September 4, 2024. https://www.cancer.gov/about-cancer/causes-prevention/risk/radiation/nuclear-accidents-fact-sheet.

110. National Center for Atmospheric Research & the UCAR Office of Programs. n.d. *Weather and CLimate Basics* . Accessed September 2023. https://eo.ucar.edu/basics/wx_2_c.html.

111. National Drought Mitigation Center. n.d. *Drought Basics.* Accessed September 2023. https://drought.unl.edu/Education/DroughtBasics.aspx.

112. —. n.d. *Types of Drought.* Accessed September 2023. https://drought.unl.edu/Education/DroughtIn-depth/TypesofDrought.aspx.

113. National Geographic. 2019. *Warming at the Poles Will Soon be Felt Globally in Rising Seas, Extreme Weather.* December 4. Accessed September 27, 2023. https://www.nationalgeographic.com/science/article/arctic#:~:text=Although%20a%20topic%20of%20current%20debate%20among%20scientists%2C,reach%20further%20south%20and%20warm%20air%20stretch%20north.

114. National Institute of Mental Health. 2024. *Substance Use and Co-Occurring Mental Disorders.* March. Accessed December 12, 2024. https://www.nimh.nih.gov/health/topics/substance-use-and-mental-health.

115. NBC Philadelphia. 2024. *Bucks Co. emergency dispatch system down for days due to cyberattack.* January 24. Accessed October 30, 2024. https://www.nbcphiladelphia.com/news/local/bucks-co-emergency-dispatch-system-down-since-sunday-due-to-cyberattack/3754282/.

116. NCEI. n.d. *Regional Snowfall Index (RSI) Overview.* Accessed September 26, 2023. https://www.ncdc.noaa.gov/snow-and-ice/rsi/.

117. NESEC. 2021. *Ice Jams.* Accessed August 6, 2023. https://nesec.org/ice-jams/.

118. NHTSA. 2023. *Early Estimate of Motor Vehicle Traffic Fatalities in 2022.* April. Accessed September 29, 2023. https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813428.

119. NIDIS. 2024. *Drought by Sector: Agriculture.* Accessed December 12, 2024. https://www.drought.gov/sectors/agriculture.

120. —. 2024. *Drought by Sector: Manufactoring.* Accessed December 12, 2024. https://www.drought.gov/sectors/manufacturing.

121. —. 2024. *Drought by Sector: Water Utilities.* Accessed December 12, 2024. https://www.drought.gov/sectors/water-utilities.

122. NIJ. 2023. *Assessing Risk of Terrorist Acts by Looking at Location Data and Demographic and Social Characteristics.* February 27. Accessed 2024. https://nij.ojp.gov/topics/articles/assessing-risk-terrorist-acts-using-location-data-and-other-characteristics.

123. NOAA. n.d. *EF Scale.* Accessed September 2023. https://www.weather.gov/lsx/enhancedfujitascale#:~:text=Limitations%20of%20the%20original%20Fujita%20scale%20may%20have,and%20better%20correlation%20between%20damage%20and%20wind%20speed.

124. —. n.d. *Enhanced F Scale for Tornado Damage.* Accessed September 2023. https://www.spc.noaa.gov/faq/tornado/ef-scale.html.

125. —. n.d. *Months of Peak Tornado Occurrence* . Accessed September 2023. https://www.weather.gov/cae/tornadobymonth.html.

126. NOAA NCEI. 2024. *Storm Events Database.* Accessed September 11, 2024. https://www.ncdc.noaa.gov/stormevents/choosedates.jsp?statefips=42%2CPENNSYLVANIA.

127. NOAA. n.d. *Types of Damaging Winds.* Accessed September 2023. https://www.nssl.noaa.gov/education/svrwx101/wind/types/.

128. —. n.d. *US Climate Normals Quick Access.* Accessed August 2024. https://www.ncei.noaa.gov/access/us-climate-normals/#dataset=normals-monthly&timeframe=30&location=PA&station=USW00054737.

129. —. 2023. *What is subsidence?* August 24. Accessed September 26, 2023. https://oceanservice.noaa.gov/facts/subsidence.html.

130. —. 2023d. *Why Does Wind Blow?* National Oceanic and Atmospheric Administration. https://scijinks.gov/wind/.

131. —. 2023. *Winter Weather Basics.* January 4. Accessed August 27, 2023. https://www.nssl.noaa.gov/education/svrwx101/winter/#:~:text=Most%20deaths%20from%20winter%20storms%20are%20not%20directly,threat%20to%20you%20depends%20on%20your%20specific%20situation.

132. NOAA-NSSL. n.d. *Severe Storm 101 - Hail.* https://nssl.noaa.gov/education/svrwx101/hail/.

133. North Carolina State University. 2013. *Temperatures Moderate and Drought Abates in April.* May 10. https://climate.ncsu.edu/blog/2013/05/climate-summary-april-2013/.

134. NRC. 2021. *Emergency Classification.* U.S. Nuclear Regulatory Commission. March 29. https://www.nrc.gov/about-nrc/emerg-preparedness/about-emerg-preparedness/emerg-classification.html.

135. NSC. 2023. *Railroad Deaths and Injuries.* September 5. Accessed September 29, 2023. https://injuryfacts.nsc.org/home-and-community/safety-topics/railroad-deaths-and-injuries/.

136. NSIDC. n.d. *Snow.* Accessed August 27, 2023. https://nsidc.org/learn/parts-cryosphere/snow/why-snow-matters#:~:text=Faster%20snow%20cover%20retreat%20means%20earlier%20soil%20exposure%2C,runoff%20potentially%20leaves%20rivers%20drier%20in%20late%20summer.

137. NSSL. 2013. *Severe Thunderstorm Climatology.* National Oceanic & Atmospheric Administration. http://www.nssl.noaa.gov/projects/hazard/index.html.

138. —. 2023a. *Tornado Basics.* National Severe Storms Laboratory. https://www.nssl.noaa.gov/education/svrwx101/tornadoes/.

139. —. 2023b. *Types of Damaging Wind.* National Severe Storm Laboratory. https://nssl.noaa.gov/education/svrwx101/wind/types/.

140. NTSB. 2024. *CAROL.* Accessed September 3, 2024. https://www.ntsb.gov/Pages/ResultsV2.aspx?queryId=37b93261-42f1-4446-ac9e-5e4adeffcaf4.

141. —. 2022. *General Aviation Accident Dashboard: 2012-2021.* Accessed September 29, 2023. https://www.ntsb.gov/safety/data/Pages/GeneralAviationDashboard.aspx.

142. NWS. 2009. *Flash Flood.* http://w1.weather.gov/glossary/index.php?word=flash+flood.

143. —. 2019. *Flood Related Hazards.* September 16. Accessed January 03, 2023. https://www.weather.gov/safety/flood-hazards.

144. —. 2011. *Flood Safety.* http://www.erh.noaa.gov/car/WCM/Awareness_Campaigns_files/flood_part_1.htm.

145. —. 2009. *National Weather Service Glossary.* June 25. Accessed September 26, 2023. https://w1.weather.gov/glossary/.

146. —. 2019. *NATIONAL WEATHER SERVICE MANUAL 10-950.* November 26. Accessed September 26, 2023. https://www.nws.noaa.gov/directives/sym/pd01009050curr.pdf#:~:text=Ongoing%20flooding%20can%20have%20rapid%20intensification%20of%20severity,requires%20immediate%20action%20to%20protect%20life%20and%20property.

147. —. 2019. *Snow Storm Safety.* July 31. Accessed August 27, 2023. https://www.weather.gov/safety/winter-snow.

148. —. 2022. *The Enhanced Fujita Scale (EF Scale).* Accessed September 2023. https://www.weather.gov/oun/efscale.

149. —. 2019. *What is a Nor'Easter?* October 17. Accessed September 26, 2023. https://www.weather.gov/safety/winter-noreaster.

150. PA DEP. n.d. *Dam Safety.* Accessed September 25, 2023. https://www.dep.pa.gov/Business/Water/Waterways/DamSafety/Pages/default.aspx.

151. —. 2021. "Pennsylvania Climate Impacts Assessment." Pennsylvania Department of Environmental Protection. Accessed August 2024. https://greenport.pa.gov/elibrary//GetDocument?docId=3667348&DocName=PENNSYLVANIA%20CLIMATE%20IMPACTS%20ASSESSMENT%202021.PDF%20%20%3cspan%20style%3D%22color:green%3b%22%3e%3c/span%3e%20%3cspan%20style%3D%22color:blue%3b%22%3e%28NEW%29%3c/span%3e%204/30/2.

152. —. 2023. "Pennsylvania State Water Plan." Pennsylvania Department of Environmental Protection. Janaury. Accessed August 2024. https://greenport.pa.gov/elibrary//GetDocument?docId=4879857&DocName=PENNSYLVANIA%20STATE%20WATER%20PLAN%20UPDATE%202022.PDF%20%20%3cspan%20style%3D%22color:green%3b%22%3e%3c/span%3e%20%3cspan%20style%3D%22color:blue%3b%22%3e%28NEW%29%3c/span%3e.

153. —. 2023. *Pennsylvania's Nuclear Power Plants.* Pennsylvania Department of Environmental Protection. https://www.dep.pa.gov/Business/RadiationProtection/NuclearSafety/Pages/Pennsylvania's-Nuclear-Power-Plants.aspx.

154. —. 2012. "Population Projections Report." Commonwealth of Pennsylvania Department of Environmental Protection, November 29. Accessed May 5, 2024. https://files.dep.state.pa.us/water/Division%20of%20Planning%20and%20Conservation/2010_2040PopulationProjections.pdf.

155. —. 2022. *Radon in the Home.* Pennsylvania Department of Environmental Protection. Accessed 2022. https://www.dep.pa.gov/Business/RadiationProtection/RadonDivision/Pages/Radon-in-the-home.aspx.

156. PA DOH. 2024. *Enterprise Data Dissemination Informatics Exchange.* Accessed 2024. https://www.phaim1.health.pa.gov/EDD/WebForms/DeathCntySt.aspx.

157. —. 2024. *COVID-19 Aggregate Cases NO FURTHER UPDATES.* May 8. Accessed December 12, 2024. https://data.pa.gov/Covid-19/COVID-19-Aggregate-Cases-NO-FURTHER-UPDATES/j72v-r42c/data_preview.

158. —. 2024. *COVID-19 Aggregate Death Data Current Monthly County Health.* May 8. Accessed December 12, 2024. https://data.pa.gov/Covid-19/COVID-19-Aggregate-Death-Data-Current-Monthly-Coun/fbgu-sqgp/data_preview.

159. PDA. n.d. *Controlled Plant & Noxious Weeds.* Pennsylvania Department of Agriculture. Accessed October 8, 2023. https://www.agriculture.pa.gov/Plants_Land_Water/PlantIndustry/NIPPP/Pages/Controlled-Plant-Noxious-Weed.aspx.

160. —. n.d. *Spotted Lanternfly Alert.* Pennsylvania Department of Agriculture. Accessed October 8, 2023. https://www.agriculture.pa.gov/Plants_Land_Water/PlantIndustry/Entomology/spotted_lanternfly/SpottedLanternflyAlert/Pages/default.aspx.

161. —. n.d. Pennsylvania Department of Agriculture. Accessed October 8, 2023. https://www.agriculture.pa.gov/Plants_Land_Water/PlantIndustry/Entomology/Pages/default.aspx.

162. —. 2019. *https://www.agriculture.pa.gov/Plants_Land_Water/PlantIndustry/GISC/Pages/Managing-Invasive-Species.aspx.* Pennsylvania Department of Agriculture . Accessed October 8, 2023. https://www.agriculture.pa.gov/Plants_Land_Water/PlantIndustry/GISC/Pages/Managing-Invasive-Species.aspx.

163. —. n.d. *Invasive Species of Concern.* Pennsylvania Department of Agriculture . Accessed October 6, 2023. https://www.agriculture.pa.gov/Plants_Land_Water/PlantIndustry/GISC/Pages/Invasive-Species-in-Pennsylvania.aspx.

164. —. 2019. *Spotted Lanternfly.* Pennsylvania Department of Agriculture. Accessed October 8, 2023. https://www.agriculture.pa.gov/Plants_Land_Water/PlantIndustry/Entomology/spotted_lanternfly/Pages/default.aspx#:~:text=The%20SLF%20can%20impact%20the%20viticulture%20%28grape%29%2C%20fruit,%24324%20million%20annually%20and%20more%20than%202%2C800%20jobs.

165. PDH. 2023. *Fatal and Non-Fatal Drug Overdose Surveillance Interactive Data Report.* Pennsylvania Department of Health. August. Accessed September 25, 2023. https://public.tableau.com/app/profile/pennsylvania.pdmp/viz/PennsylvaniaODSMPDrugOverdoseSurveillanceInteractiveDataReport/Contents.

166. —. 2022. *Opiod Data Dashboard.* Pennsylvanai Department of Health. Accessed September 25, 2023. https://data.pa.gov/stories/s/9q45-nckt/.

167. PEMA. 2021. *2021 Climate Change Impacts Assessment.* Pennsylvania Emergency Managment Agency. Accessed September 25, 2023. https://www.dep.pa.gov/Citizens/climate/Pages/impacts.aspx.

168. —. 2023. *Commonwealth of Pennsylvania 2023 State Hazard Mitigation Plan.* Accessed September 2024. https://www.pema.pa.gov/Mitigation/Planning/Documents/2023%20Hazard%20Mitigation%20Plan.pdf.

169. —. 2024. *Pennsylvania Governor Proclamations.* Accessed August 23, 2024. https://www.pema.pa.gov/Recovery/Governor-Proclamations/_layouts/15/formspubs/formsandpubs.aspx.

170. PEMA. 2020. *Pennsylvania Hazard Mitigation Plan Standard Operating Guide.*

171. —. 2020. *Pennsylvania Hazard Mitigation Plan Standard Operating Guide.* Accessed August 26, 2024. https://www.pema.pa.gov/Mitigation/Planning/Documents/All-Hazard-Mitigation-Planning-Standard-Operating-Guide.pdf.

172. Pennsylvania Department of Agriculture. 2021. *Entomology Program Report.* Pennsylvania Department of Agriculture. Accessed October 8, 2023. https://www.agriculture.pa.gov/Plants_Land_Water/PlantIndustry/Entomology/Documents/2021%20Ent%20Year-end.pdf.

173. Philly Voice. 2024. *As drone sightings mount in Philly area, Rep. Brian Fitzpatrick calls for more transparency.* December 11. Accessed December 12, 2024. https://www.phillyvoice.com/drone-sightings-philly-fitzpatrick-bucks-county-new-jersey/.

174. PHMSA. 2023. *2022 Hazmat Summary by Casualty Classification.* September 29. Accessed September 29, 2023. https://portal.phmsa.dot.gov/analytics/saw.dll?PortalPages.

175. Planning, Lancaster County. n.d. *Lancaster Countywide Water and Sewer Mapping Project.* Accessed 2024. https://lancastercountyplanning.org/267/Countywide-Water-Sewer-Mapping.

176. Purdue MRCC. n.d. *Hail.* Purdue University Midwestern Regional Climate Center. https://mrcc.geddes.rcac.purdue.edu/living_wx/hail.

177. Radeloff, Volker C, David P Helmers, H Anu Kramer, and Susan I Stewart. 2018. *Rapid Growth of the US Wildland-Urban Interface Raises Wildfire Risk.* March. Accessed September 2023. https://www.pnas.org/doi/10.1073/pnas.1718850115.

178. Rathish, Balram, Roshni Pillay, Arun Wilson, and Vijay Vasudev Pillay. 2023. *National Library of Medicine: Comprehensive Review of Bioterrorism* . March 27. Accessed 2024. https://www.ncbi.nlm.nih.gov/books/NBK570614/#:~:text=Bioterrorism%20involves%20the%20deliberate%20release%20of%20bioweapons%20to,biological%20warfare%20or%20by%20terrorist%20groups%20or%20criminals.

179. SBA. 2024. *Disaster Declarations.* Accessed August 23, 2024. https://lending.sba.gov/search-disaster/.

180. Shedlock, K. and Pakiser, L. 1997. *Earthquakes.* United States Geological Survey. http://pubs.usgs.gov/gip/earthq1/.

181. Shetty, Mira. 2018. *Penn and the 1918 Influenza Epidemic.* Accessed September 2023. https://archives.upenn.edu/exhibits/penn-history/flu/.

182. Sophos. 2022. *The State of Ransomware 2022.* April. Accessed August 6, 2024. https://assets.sophos.com/X24WTUEQ/at/4zpw59pnkpxxnhfhgj9bxgj9/sophos-state-of-ransomware-2022-wp.pdf.

183. Squires, Michael F., Jay H. Lawrimore, Richard R. Heim Jr., David A. Robinson, Mathieu, R. Gerbush, and Thomas W. and Estilow. 2014. "Articles." *The Regional Snowfall Index.* December. Accessed January 11, 2024. https://www.ncei.noaa.gov/monitoring-content/snow-and-ice/rsi/docs/RSI-Dec-2014-BAMS.pdf.

184. Stanford University. 2018. *NPDP Dam Incident Database.* December 22. Accessed September 25, 2023. http://npdp.stanford.edu/data_access/dam_incidents_view.php?editid1=INC_19110930_00001.

185. Stanford, Scott. 2003. *Predicting Earthquake Damage in New JErsey.* Accessed September 25, 2023. https://www.nj.gov/dep/njgs/enviroed/infocirc/eqdamage.pdf.

186. Stewart, Sue. 2015. "Mapping the wildland urban interface (WUI): where housing meets wildland vegetation." *U.S. Forest Service.* April. Accessed September 2023. https://www.fs.usda.gov/rmrs/projects/mapping-wildland-urban-interface-wui-where-housing-meets-wildland-vegetation.

187. Tiwari, A., and J.W. Rachlin. 2018. "A Review of Road Salt Ecological Impacts." *Northeastern Naturalist* 123-142. https://www.jstor.org/stable/26453969.

188. U.S. Census Bureau. 2022. *Demographic Characteristics.* Accessed September 21, 2023. https://data.census.gov/table?tid=ACSDP5Y2021.DP05&g=050XX00US42071_040XX00US42.

189. —. 2022. *Economic Characteristics.* Accessed September 21, 2023. https://data.census.gov/table?tid=ACSDP5Y2021.DP03&g=050XX00US42071_040XX00US42.

190. —. 2023. *Poverty Thresholds.* July 13. Accessed September 19, 2023. https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-poverty-thresholds.html.

191. —. 2024. *QuickFacts: Pennsylvania; Lancaster County, Pennsylvania.* Accessed November 19, 2024. https://www.census.gov/quickfacts/fact/table/PA,lancastercountypennsylvania/PST045223.

192. —. 2022. *Social Characteristics.* Accessed September 21, 2023. https://data.census.gov/table?tid=ACSDP5Y2021.DP02&g=050XX00US42071_040XX00US42.

193. U.S. Department of Energy. n.d. *Weatherization Assistance Program.* Accessed August 23, 2024. https://www.energy.gov/scep/wap/weatherization-assistance-program.

194. U.S. Department of Homeland Security. 2022. *Chemical Attack Fact Sheet: Warfare Agents, Industrial Chemicals, and Toxins.* April 19. Accessed 2024. https://www.dhs.gov/publication/chemical-attack-fact-sheet.

195. —. 2023. *Hazardous Materials Release.* January 23. Accessed 2024. https://www.dhs.gov/hazardous-materials-release#:~:text=The%20improper%20leak%2C%20spillage%2C%20discharge%2C%20or%20disposal%20of,and%20safety%2C%20campus%20property%2C%20and%20the%20surrounding%20environment.

196. U.S. Federal Highway Administration. 2011. *Highway Safety Improvement Program Manual.* July 15. Accessed September 29, 2023. https://safety.fhwa.dot.gov/hsip/resources/fhwasa09029/sec3.cfm.

197. United States Environmental Protection Agency. 2022. *Climate Change and Harmful Algal Blooms.* December 15. Accessed October 25, 2023. https://www.epa.gov/nutrientpollution/climate-change-and-harmful-algal-blooms.

198. —. 2010. *New Jersey Water Fact Sheet.* July. https://www.epa.gov/sites/default/files/2017-02/documents/ws-ourwater-new-jersey-state-fact-sheet.pdf#:~:text=The%20average%20New%20Jersey%20resident%20uses%2070%20gallons,increase%20to%20up%20to%20155%20gallons%20per%20day.

199. US Census. n.d. *Definitions-Building Permits Survey.* Accessed September 2023. https://www.census.gov/construction/nrc/definitions/bps.html#:~:text=A%20manufactured%20home%20is%20defined%20as%20a%20movable,factory%2C%20and%20without%20need%20of%20a%20permanent%20foundation.

200. US Department of Agriculture. 2017. *County Profile.* Accessed September 21, 2023. https://www.nass.usda.gov/Publications/AgCensus/2017/Online_Resources/County_Profiles/Pennsylvania/cp42071.pdf.

201. US DHS. 2019. *Base Flood Elevation (BFE).* August 28. Accessed July 7, 2023. https://www.ready.gov/faq/base-flood-elevation-bfe.

202. US DOE. 2010. *An Updated Assessment of Copper Wire Thefts from Electric Utilities.* October. Accessed September 27, 2023. https://www.energy.gov/sites/default/files/Updated%20Assessment-Copper-Final%20October%202010.pdf.

203. US NRC. 2020. *Radiation Exposure and Cancer.* March 20. Accessed September 4, 2024. https://www.nrc.gov/about-nrc/radiation/health-effects/rad-exposure-cancer.html.

204. USACE. n.d. *Dam Safety Program.* Accessed September 25, 2023. https://www.sam.usace.army.mil/Missions/Dam-Safety-Program/#:~:text=The%20USACE%20Dam%20Safety%20Program%20uses%20a%20risk-informed,or%20the%20environment%2C%20with%20the%20emphasis%20on%20people.

205. —. 2024. *Ice Jam Database.* Accessed September 11, 2024. https://icejam.sec.usace.army.mil/ords/f?p=101:7:::::::.

206. —. 2013. *National Inventory of Dams: Data Overview.* US Army Corps of Engineers. https://www.agc.army.mil/Media/Fact-Sheets/Fact-Sheet-Article-View/Article/480923/national-inventory-of-dams/#:~:text=Dams%20assigned%20the%20high%20hazard,but%20can%20cause%20economic%20loss.

207. USDA. 2017. *2017 Agricultural Census: County Profile.* Accessed September 30, 2023. https://www.nass.usda.gov/Publications/AgCensus/2017/Online_Resources/County_Profiles/Pennsylvania/cp42071.pdf.

208. —. 2022. *2022 Agricultural Census: County Profile.* Accessed May 2024. https://www.nass.usda.gov/Publications/AgCensus/2022/Online_Resources/County_Profiles/Pennsylvania/cp42071.pdf.

209. —. 2023. *Asian Longhorned Beetle.* March 3. Accessed October 8, 2023. https://www.aphis.usda.gov/aphis/ourfocus/planthealth/plant-pest-and-disease-programs/pests-and-diseases/asian-longhorned-beetle/asian-longhorned-beetle.

210. —. 2022. "Census of Agriculture County Profile ." Accessed August 2024. https://www.nass.usda.gov/Publications/AgCensus/2022/Online_Resources/County_Profiles/Pennsylvania/cp42071.pdf.

211. —. n.d. *Emerald Ash Borer.* U.S. Department of Agriculture. Accessed October 8, 2023. https://www.invasivespeciesinfo.gov/terrestrial/invertebrates/emerald-ash-borer.

212. —. n.d. *Spotted Lanternfly.* U.S. Department of Agriculture. Accessed October 8, 2023. https://www.aphis.usda.gov/aphis/resources/pests-diseases/hungry-pests/the-threat/spotted-lanternfly/spotted-lanternfly.

213. —. n.d. *Terrestrial Invasives.* Accessed October 8, 2023. https://www.invasivespeciesinfo.gov/terrestrial.

214. USDOL. n.d. *OSHA: Plugging/Abandoning Wells.* https://www.osha.gov/etools/oil-and-gas/abandoning-well#:~:text=An%20oil%20or%20gas%20well%20is%20plugged%20and,its%20useful%20life%20or%20becomes%20a%20dry%20hole.

215. USFS. 2023. *Fire Danger Rating.* Accessed 2023. https://www.wfas.net/index.php/fire-danger-rating-fire-potential--danger-32.

216. —. 2023. *Wildland Fire Assessment System.* Accessed 2023. https://www.wfas.net/index.php/news-mainmenu-26/1-wfas.

217. —. 2011. *Wildland Fires.* Accessed September 2023. https://www.fs.usda.gov/ccrc/topics/wildfire.

218. USGS. 2022. *Did You Feel It?* August 23. Accessed September 25, 2023. https://www.usgs.gov/tools/did-you-feel-it.

219. —. 2023. *Did You Feel It?* Accessed September 25, 2023. https://earthquake.usgs.gov/earthquakes/map/?currentFeatureId=ld60134206&extent=39.59299,-77.31628&extent=40.55555,-75.18494&range=search&format=dyfi&listOnlyShown=true&timeZone=utc&search=%7B%22name%22:%22Search%20Results%22,%22params%22:%7B%22starttime%.

220. —. 2012. *Earthquake Glossary- seiche.* http://earthquake.usgs.gov/learn/glossary/?term=seiche.

221. —. 2019. *Earthquake Hazards 101 - the Basics.* August 6. Accessed September 25, 2023. https://www.usgs.gov/programs/earthquake-hazards/science/earthquake-hazards-101-basics#overview.

222. —. 2019. *Earthquake Hazards 201 - Technical Q&A.* August 6. Accessed September 25, 2023. https://www.usgs.gov/programs/earthquake-hazards/science/earthquake-hazards-201-technical-qa#overview.

223. —. 2016. *Effects of Urban Development on Floods.* November 29. Accessed August 6, 2023. https://pubs.usgs.gov/fs/fs07603/#:~:text=The%20changes%20in%20land%20use%20associated%20with%20urban,and%20frequency%20of%20floods%20increase%20in%20nearby%20streams.

224. —. n.d. *GSN Stations.* Accessed September 25, 2023. https://earthquake.usgs.gov/monitoring/operations/network.php?virtual_network=GSN.

225. —. 2000. *Land Subsidence in the United States.* https://water.usgs.gov/ogw/pubs/fs00165/.

226. —. 2012. *Moment magnitude, Richter scale - what are the different magnitude scales, and why are there so many?* December 13. Accessed September 14, 2023. https://www.usgs.gov/faqs/moment-magnitude-richter-scale-what-are-different-magnitude-scales-and-why-are-there-so-many.

227. —. 2023. *Search Earthquake Catalog.* Accessed September 25, 2023. https://earthquake.usgs.gov/earthquakes/map/?currentFeatureId=usp00023tg&extent=39.83701,-76.68663&extent=40.31828,-75.62096&range=search&timeZone=utc&search=%7B%22name%22:%22Search%20Results%22,%22params%22:%7B%22starttime%22:%221700-01-01%2000:00:00%22,.

228. —. 2018. *Sinkholes.* June 9. Accessed September 26, 2023. https://www.usgs.gov/special-topics/water-science-school/science/sinkholes#overview.

229. —. 2021. *The Modified Mercalli Intensity Scale.* https://www.usgs.gov/natural-hazards/earthquake-hazards/science/modified-mercalli-intensity-scale?qt-science_center_objects=0#qt-science_center_objects.

230. —. n.d. *What are the Effects of Earthquakes?* Accessed August 28, 2023. https://www.usgs.gov/programs/earthquake-hazards/what-are-effects-earthquakes.

231. USNRC. 2022. *Emergency Action Level Deployment.* Accessed 2024. https://www.nrc.gov/about-nrc/emerg-preparedness/about-emerg-preparedness/emerg-action-level-dev.html.

232. WGAL. 2024. *Three Mile Island is reopening 45 years after the incident.* September 24. Accessed October 11, 2024. https://www.wgal.com/article/three-mile-island-reopening/61863449.

233. Whittaker, Barry N., and David J. Reddish. 1989. *Subsidence: Occurrence, Prediction and Control.* Accessed May 02, 2023. https://www.sciencedirect.com/bookseries/developments-in-geotechnical-engineering/vol/56/suppl/C.

234. WHO. n.d. *Infectious Diseases* . Accessed September 2023. https://www.who.int/teams/integrated-health-services/clinical-services-and-systems/surgical-care/infectious-diseases.

235. —. n.d. *Social Determinants of Health.* Accessed September 2023. https://www.who.int/health-topics/social-determinants-of-health#tab=tab_1.

236. —. 2024. *WHO Health Emergencies Programme.* November 23. Accessed December 12, 2024. https://data.who.int/dashboards/covid19/deaths.

237. Wilson Kehoe Winingham. 2022. *Aviation Accidents: Human Error.* May 17. Accessed September 29, 2023. https://www.wkw.com/aviation-accidents/blog/aviation-accidents-human-error/.

Appendix B: Local Mitigation Plan Review Tool

Cover Page

The Local Mitigation Plan Review Tool (PRT) demonstrates how the local mitigation plan meets the regulation in 44 CFR § 201.6 and offers states and FEMA Mitigation Planners an opportunity to provide feedback to the local governments, including special districts.

1. The Multi-Jurisdictional Summary Sheet is a worksheet that is used to document how each jurisdiction met the requirements of the plan elements (Planning Process; Risk Assessment; Mitigation Strategy; Plan Maintenance; Plan Update; and Plan Adoption).
2. The Plan Review Checklist summarizes FEMA's evaluation of whether the plan has addressed all requirements.

For greater clarification of the elements in the Plan Review Checklist, please see Section 4 of this guide. Definitions of the terms and phrases used in the PRT can be found in Appendix E of this guide.

Plan Information	
Jurisdiction(s)	Lancaster County, Pennsylvania
Title of Plan	2025 Lancaster County Hazard Mitigation Plan
New Plan or Update	Update
Single- or Multi-Jurisdiction	Multi-Jurisdiction
Date of Plan	January 2025
Local Point of Contact	
Title	Community Resilience Coordinator
Name	Brooke Goodling
Agency	Lancaster County Department of Public Safety, Emergency Management Division
Address	28 S. Charlotte Street, Manheim, PA 17545 PO Box 219
Phone Number	(717) 664-1210
Email	BGoodling@lancastercountypa.gov

Additional Point of Contact	
Title	Deputy Director
Name	Benjamin Herskowitz
Agency	Lancaster County Department of Public Safety, Emergency Management Division
Address	28 S. Charlotte Street, Manheim, PA 17545 PO Box 219
Phone Number	(717) 664-1206
Email	BHerskowitz@lancastercountypa.gov

Review Information	
State Review	
State Reviewer(s) and Title	
State Review Date	
FEMA Review	
FEMA Reviewer(s) and Title	
Date Received in FEMA Region	
Plan Not Approved	
Plan Approvable Pending Adoption	
Plan Approved	

Multi-Jurisdictional Summary Sheet

#	Jurisdiction Name	Requirements Met (Y/N)							
		A. Planning Process	B. Risk Assessment	C. Mitigation Strategy	D. Plan Maintenance	E. Plan Update	F. Plan Adoption	G. HHPD Requirements	H. State Requirements
1	Lancaster County	Y	Y	Y	Y	Y	Y	Y	N/A
2	Adamstown Borough	Y	Y	Y	Y	Y	Y	N/A	N/A
3	Akron Borough	Y	Y	Y	Y	Y	Y	N/A	N/A
4	Bart Township	Y	Y	Y	Y	Y	Y	N/A	N/A
5	Brecknock Township	Y	Y	Y	Y	Y	Y	N/A	N/A
6	Caernarvon Township	Y	Y	Y	Y	Y	Y	N/A	N/A
7	Christiana Borough	Y	Y	Y	Y	Y	Y	N/A	N/A
8	Clay Township	Y	Y	Y	Y	Y	Y	Y	N/A
9	Colerain Township	Y	Y	Y	Y	Y	Y	N/A	N/A
10	Columbia Borough	Y	Y	Y	Y	Y	Y	N/A	N/A
11	Conestoga Township	Y	Y	Y	Y	Y	Y	N/A	N/A
12	Conoy Township	Y	Y	Y	Y	Y	Y	N/A	N/A
13	Denver Borough	Y	Y	Y	Y	Y	Y	N/A	N/A
14	Drumore Township	Y	Y	Y	Y	Y	Y	N/A	N/A
15	Earl Township	Y	Y	Y	Y	Y	Y	N/A	N/A
16	East Cocalico Township	Y	Y	Y	Y	Y	Y	N/A	N/A
17	East Donegal Township	Y	Y	Y	Y	Y	Y	N/A	N/A
18	East Drumore Township	Y	Y	Y	Y	Y	Y	N/A	N/A
19	East Earl Township	N	N	N	N	N	N	N	N/A
20	East Hempfield Township	Y	Y	Y	Y	Y	Y	N/A	N/A
21	East Lampeter Township	Y	Y	Y	Y	Y	Y	N/A	N/A
22	East Petersburg Borough	Y	Y	Y	Y	Y	Y	N/A	N/A
23	Eden Township	Y	Y	Y	Y	Y	Y	N/A	N/A
24	Elizabeth Township	Y	Y	Y	Y	Y	Y	Y	N/A
25	Elizabethtown Borough	Y	Y	Y	Y	Y	Y	Y	N/A
26	Ephrata Borough	Y	Y	Y	Y	Y	Y	N/A	N/A
27	Ephrata Township	Y	Y	Y	Y	Y	Y	N/A	N/A
28	Fulton Township	Y	Y	Y	Y	Y	Y	N/A	N/A
29	Lancaster City	Y	Y	Y	Y	Y	Y	N/A	N/A
30	Lancaster Township	Y	Y	Y	Y	Y	Y	N/A	N/A
31	Leacock Township	Y	Y	Y	Y	Y	Y	N/A	N/A
32	Lititz Borough	Y	Y	Y	Y	Y	Y	N/A	N/A
33	Little Britain Township	Y	Y	Y	Y	Y	Y	N/A	N/A
34	Manheim Borough	Y	Y	Y	Y	Y	Y	N/A	N/A
35	Manheim Township	Y	Y	Y	Y	Y	Y	Y	N/A
36	Manor Township	Y	Y	Y	Y	Y	Y	N/A	N/A
37	Marietta Borough	Y	Y	Y	Y	Y	Y	N/A	N/A
38	Martic Township	Y	Y	Y	Y	Y	Y	Y	N/A
39	Millersville Borough	Y	Y	Y	Y	Y	Y	N/A	N/A
40	Mount Joy Borough	Y	Y	Y	Y	Y	Y	N/A	N/A
41	Mount Joy Township	Y	Y	Y	Y	Y	Y	N/A	N/A
42	Mountville Borough	Y	Y	Y	Y	Y	Y	N/A	N/A
43	New Holland Borough	Y	Y	Y	Y	Y	Y	N/A	N/A
44	Paradise Township	Y	Y	Y	Y	Y	Y	N/A	N/A
45	Penn Township	Y	Y	Y	Y	Y	Y	N/A	N/A
46	Pequea Township	Y	Y	Y	Y	Y	Y	N/A	N/A
47	Providence Township	Y	Y	Y	Y	Y	Y	N/A	N/A
48	Quarryville Borough	Y	Y	Y	Y	Y	Y	N/A	N/A
49	Rapho Township	Y	Y	Y	Y	Y	Y	N/A	N/A
50	Sadsbury Township	Y	Y	Y	Y	Y	Y	N/A	N/A
51	Salisbury Township	Y	Y	Y	Y	Y	Y	N/A	N/A
52	Strasburg Borough	Y	Y	Y	Y	Y	Y	N/A	N/A
53	Terre Hill Borough	N	N	N	N	N	N	N/A	N/A
54	Strasburg Township	Y	Y	Y	Y	Y	Y	N/A	N/A
55	Upper Leacock Township	Y	Y	Y	Y	Y	Y	N/A	N/A
56	Warwick Township	Y	Y	Y	Y	Y	Y	N/A	N/A

#	Jurisdiction Name	Requirements Met (Y/N)							
		A. Planning Process	B. Risk Assessment	C. Mitigation Strategy	D. Plan Maintenance	E. Plan Update	F. Plan Adoption	G. HHPD Requirements	H. State Requirements
57	West Cocalico Township	Y	Y	Y	Y	Y	Y	Y	N/A
58	West Donegal Township	Y	Y	Y	Y	Y	Y	N/A	N/A
59	West Earl Township	Y	Y	Y	Y	Y	Y	N/A	N/A
60	West Hempfield Township	Y	Y	Y	Y	Y	Y	N/A	N/A
61	West Lampeter Township	Y	Y	Y	Y	Y	Y	N/A	N/A
62	Bainbridge Water Authority	Y	Y	Y	Y	Y	Y	N/A	N/A
63	Cocalico School District	Y	Y	Y	Y	Y	Y	N/A	N/A
64	Columbia Borough School District	Y	Y	Y	Y	Y	Y	N/A	N/A
65	Conestoga Valley School District	Y	Y	Y	Y	Y	Y	N/A	N/A
66	Donegal School District	Y	Y	Y	Y	Y	Y	N/A	N/A
67	East Cocalico Township Water and Sewer	Y	Y	Y	Y	Y	Y	N/A	N/A
68	Eastern Lancaster County School District	N	N	N	N	N	N	N/A	N/A
69	Elizabethtown Area School District	Y	Y	Y	Y	Y	Y	N/A	N/A
70	Ephrata Area School District	Y	Y	Y	Y	Y	Y	N/A	N/A
71	Hempfield School District	Y	Y	Y	Y	Y	Y	N/A	N/A
72	Lampeter-Strasburg School District	Y	Y	Y	Y	Y	Y	N/A	N/A
73	Lancaster Area Sewer Authority	Y	Y	Y	Y	Y	Y	N/A	N/A
74	Lancaster Bible College	Y	Y	Y	Y	Y	Y	N/A	N/A
75	Lancaster County Conservation District	Y	Y	Y	Y	Y	Y	N/A	N/A
76	Lancaster School District	Y	Y	Y	Y	Y	Y	N/A	N/A
77	Lancaster-Lebanon Intermediate Unit	Y	Y	Y	Y	Y	Y	N/A	N/A
78	Manheim Area Water and Sewer Authority	Y	Y	Y	Y	Y	Y	N/A	N/A
79	Manheim Central School District	Y	Y	Y	Y	Y	Y	N/A	N/A
80	Manheim Township School District	Y	Y	Y	Y	Y	Y	N/A	N/A
81	Octara Area School District	Y	Y	Y	Y	Y	Y	N/A	N/A
82	Penn Manor School District	Y	Y	Y	Y	Y	Y	N/A	N/A
83	Penn State Health	Y	Y	Y	Y	Y	Y	N/A	N/A
84	Pequea Valley School District	N	N	N	N	N	N	N/A	N/A
85	Solanco School District	Y	Y	Y	Y	Y	Y	N/A	N/A
86	Warwick School District	Y	Y	Y	Y	Y	Y	N/A	N/A
87	Well Span Health	Y	Y	Y	Y	Y	Y	N/A	N/A

Plan Review Checklist

The Plan Review Checklist is completed by FEMA. States and local governments are encouraged, but not required, to use the PRT as a checklist to ensure all requirements have been met prior to submitting the plan for review and approval. The purpose of the checklist is to identify the location of relevant or applicable content in the plan by element/sub-element and to determine if each requirement has been "met" or "not met." FEMA completes the "required revisions" summary at the bottom of each element to clearly explain the revisions that are required for plan approval. Required revisions must be explained for each plan sub-element that is "not met." Sub-elements in each summary should be referenced using the appropriate numbers (A1, B3, etc.), where applicable.
Requirements for each element and sub-element are described in detail in Section 4: Local Plan Requirements of this guide.

Plan updates must include information from the current planning process.

If some elements of the plan do not require an update, due to minimal or no changes between updates, the plan must document the reasons for that.

Multi-jurisdictional elements must cover information unique to all participating jurisdictions.

Element A: Planning Process

Element A Requirements	Location in Plan (section and/or page number)	Met / Not Met
A1. Does the plan document the planning process, including how it was prepared and who was involved in the process for each jurisdiction? (Requirement 44 CFR § 201.6(c)(1))		
A1-a. Does the plan document how the plan was prepared, including the schedule or time frame and activities that made up the plan's development, as well as who was involved?	Section 3: Planning Process; Appendix C	
A1-b. Does the plan list the jurisdiction(s) participating in the plan that seek approval, and describe how they participated in the planning process?	Executive Summary, Section 3.5: Multi-Jurisdictional Planning	
A2. Does the plan document an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development as well as businesses, academia, and other private and non-profit interests to be involved in the planning process? (Requirement 44 CFR § 201.6(b)(2))		
A2-a. Does the plan identify all stakeholders involved or given an opportunity to be involved in the planning process, and how each stakeholder was presented with this opportunity?	Section 3.2: The Planning Teams	

Element A Requirements	Location in Plan (section and/or page number)	Met / Not Met
A3. Does the plan document how the public was involved in the planning process during the drafting stage and prior to plan approval? (Requirement 44 CFR § 201.6(b)(1))		
A3-a. Does the plan document how the public was given the opportunity to be involved in the planning process and how their feedback was included in the plan?	Section 3.1: Update Process and Participation Summary; Section 3.3: Meetings and Documentation; Section 3.4: Public and Stakeholder Participation;	
A4. Does the plan describe the review and incorporation of existing plans, studies, reports, and technical information? (Requirement 44 CFR § 201.6(b)(3))		
A4-a. Does the plan document what existing plans, studies, reports and technical information were reviewed for the development of the plan, as well as how they were incorporated into the document?	Section 5.2.1: Planning and Regulatory Capabilities, Appendix A	
Element A Required Revisions		
Required Revision:		

Element B: Risk Assessment

Element B Requirements	Location in Plan (section and/or page number)	Met / Not Met
B1. Does the plan include a description of the type, location, and extent of all natural hazards that can affect the jurisdiction? Does the plan also include information on previous occurrences of hazard events and on the probability of future hazard events? (Requirement 44 CFR § 201.6(c)(2)(i))		
B1-a. Does the plan describe all natural hazards that can affect the jurisdiction(s) in the planning area, and does it provide the rationale if omitting any natural hazards that are commonly recognized to affect the jurisdiction(s) in the planning area?	Hazard Description section of each Hazard Profile, Sections 4.3.1 – 4.3.20	
B1-b. Does the plan include information on the location of each identified hazard?	Location and Extent section of each Hazard Profile, Sections 4.3.1 – 4.3.20	
B1-c. Does the plan describe the extent for each identified hazard?	Range of Magnitude section of each Hazard Profile, Sections 4.3.1 –	

	4.3.20	
B1-d. Does the plan include the history of previous hazard events for each identified hazard?	Past Occurrence section of each Hazard Profile, Sections 4.3.1 – 4.3.20	

Element B Requirements	**Location in Plan (section and/or page number)**	**Met / Not Met**
B1-e. Does the plan include the probability of future events for each identified hazard? Does the plan describe the effects of future conditions, including climate change (e.g., long-term weather patterns, average temperature and sea levels), on the type, location and range of anticipated intensities of identified hazards?	Future Occurrence section of each Hazard Profile, Sections 4.3.1 – 4.3.20	
B1-f. For participating jurisdictions in a multi-jurisdictional plan, does the plan describe any hazards that are unique to and/or vary from those affecting the overall planning area?	Section 6.4 Mitigation Action Plan, Appendix D, Appendix H	
B2. Does the plan include a summary of the jurisdiction's vulnerability and the impacts on the community from the identified hazards? Does this summary also address NFIP-insured structures that have been repetitively damaged by floods? (Requirement 44 CFR § 201.6(c)(2)(ii))		
B2-a. Does the plan provide an overall summary of each jurisdiction's vulnerability to the identified hazards?	Section 4.4.2: Relative Hazard Risk Ranking	
B2-b. For each participating jurisdiction, does the plan describe the potential impacts of each of the identified hazards on each participating jurisdiction?	Vulnerability Assessment section of each Hazard Profile, Sections 4.3.1 – 4.3.20	
B2-c. Does the plan address NFIP-insured structures within each jurisdiction that have been repetitively damaged by floods?	Section 4.3.7: General Building Stock, Community Lifelines, and Other Critical Facilities, Subsections: Repetitive Loss Properties and NFIP Statistics	
Element B Required Revisions		
Required Revision:		

Element C: Mitigation Strategy

Element C Requirements	Location in Plan (section and/or page number)	Met / Not Met
C1. Does the plan document each participant's existing authorities, policies, programs and resources and its ability to expand on and improve these existing policies and programs? (Requirement 44 CFR § 201.6(c)(3))		
C1-a. Does the plan describe how the existing capabilities of each participant are available to support the mitigation strategy? Does this include a discussion of the existing building codes and land use and development ordinances or regulations?	Section 5.2.1: Planning and Regulatory Capability; Section 5.2.2: Administrative and Technical Capability; Section 5.2.4: Education and Outreach Capability	
C1-b. Does the plan describe each participant's ability to expand and improve the identified capabilities to achieve mitigation?	Section 5.2.1: Planning and Regulatory Capability; Section 5.2.2: Administrative and Technical Capability; Section 5.2.4: Education and Outreach Capability	
C2. Does the plan address each jurisdiction's participation in the NFIP and continued compliance with NFIP requirements, as appropriate? (Requirement 44 CFR § 201.6(c)(3)(ii))		
C2-a. Does the plan contain a narrative description or a table/list of their participation activities?	Section 4.3.7: General Building Stock, Community Lifelines, and Other Critical Facilities, Subsection: NFIP Statistics, Section 5.2.2 Administrative and Technical Capability	
C3. Does the plan include goals to reduce/avoid long-term vulnerabilities to the identified hazards? (Requirement 44 CFR § 201.6(c)(3)(i))		
C3-a. Does the plan include goals to reduce the risk from the hazards identified in the plan?	Section 6.1: Update Process Summary, Section 6.2: Mitigation Goals and Objectives	
C4. Does the plan identify and analyze a comprehensive range of specific mitigation actions and projects for each jurisdiction being considered to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure? (Requirement 44 CFR § 201.6(c)(3)(ii))		
C4-a. Does the plan include an analysis of a comprehensive range of actions/projects that each jurisdiction considered to reduce the impacts of hazards identified in the risk assessment?	Section 6.3: Identification and Analysis of Mitigation Techniques	

C4-b. Does the plan include one or more action(s) per jurisdiction for each of the hazards as identified within the plan's risk assessment?	Section 6.4: Mitigation Action Plan, Appendix H	
C5. Does the plan contain an action plan that describes how the actions identified will be prioritized (including a cost-benefit review), implemented, and administered by each jurisdiction? (Requirement 44 CFR § 201.6(c)(3)(iv)); (Requirement §201.6(c)(3)(iii))		
C5-a. Does the plan describe the criteria used for prioritizing actions?	Section 6.4.2: Mitigation Strategy Prioritization and Implementation, 6.4.3: Prioritization of Mitigation Actions	

Element C Requirements	**Location in Plan (section and/or page number)**	**Met / Not Met**
C5-b. Does the plan provide the position, office, department or agency responsible for implementing/administrating the identified mitigation actions, as well as potential funding sources and expected time frame?	Section 6.4: Mitigation Action Plan	
Element C Required Revisions		
Required Revision:		

Element D: Plan Maintenance

Element D Requirements	**Location in Plan (section and/or page number)**	**Met / Not Met**
D1. Is there discussion of how each community will continue public participation in the plan maintenance process? (Requirement 44 CFR § 201.6(c)(4)(iii))		
D1-a. Does the plan describe how communities will continue to seek future public participation after the plan has been approved?	Section 7.3: Continued Public Involvement	
D2. Is there a description of the method and schedule for keeping the plan current (monitoring, evaluating and updating the mitigation plan within a five-year cycle)? (Requirement 44 CFR § 201.6(c)(4)(i))		
D2-a. Does the plan describe the process that will be followed to track the progress/status of the mitigation actions identified within the Mitigation Strategy, along with when this process will occur and who will be responsible for the process?	Section 7.2.1: Monitoring	

D2-b. Does the plan describe the process that will be followed to evaluate the plan for effectiveness? This process must identify the criteria that will be used to evaluate the information in the plan, along with when this process will occur and who will be responsible.	Section 7.2.2: Evaluating	
D2-c. Does the plan describe the process that will be followed to update the plan, along with when this process will occur and who will be responsible for the process?	Section 7.2.3: Updating	

Element D Requirements	**Location in Plan (section and/or page number)**	**Met / Not Met**
D3. Does the plan describe a process by which each community will integrate the requirements of the mitigation plan into other planning mechanisms, such as comprehensive or capital improvement plans, when appropriate? (Requirement 44 CFR § 201.6(c)(4)(ii))		
D3-a. Does the plan describe the process the community will follow to integrate the ideas, information and strategy of the mitigation plan into other planning mechanisms?	Section 5.2.6: Plan Integration	
D3-b. Does the plan identify the planning mechanisms for each plan participant into which the ideas, information and strategy from the mitigation plan may be integrated?	Section 5.2.6: Plan Integration	
D3-c. For multi-jurisdictional plans, does the plan describe each participant's individual process for integrating information from the mitigation strategy into their identified planning mechanisms?	Section 5.2.6: Plan Integration	
Element D Required Revisions		
Required Revision:		

Element E: Plan Update

Element E Requirements	**Location in Plan (section and/or page number)**	**Met / Not Met**
E1. Was the plan revised to reflect changes in development? (Requirement 44 CFR § 201.6(d)(3))		
E1-a. Does the plan describe the changes in development that have occurred in hazard-prone areas that have increased or decreased each community's vulnerability since the previous plan was approved?	Section 2.4: Land Use and Development	
E2. Was the plan revised to reflect changes in priorities and progress in local mitigation efforts? (Requirement 44 CFR § 201.6(d)(3))		

E2-a. Does the plan describe how it was revised due to changes in community priorities?	Section 6.2: Mitigation Goals and Objectives	
E2-b. Does the plan include a status update for all mitigation actions identified in the previous mitigation plan?	Section 6.1.2 Past Mitigation Action Status and Update of Mitigation Strategies	

Element E Requirements	**Location in Plan (section and/or page number)**	**Met / Not Met**
E2-c. Does the plan describe how jurisdictions integrated the mitigation plan, when appropriate, into other planning mechanisms?	Section 5.2.6: Plan Integration	
Element E Required Revisions		
Required Revision:		

Element F: Plan Adoption

Element F Requirements	**Location in Plan (section and/or page number)**	**Met / Not Met**
F1. For single-jurisdictional plans, has the governing body of the jurisdiction formally adopted the plan to be eligible for certain FEMA assistance? (Requirement 44 CFR § 201.6(c)(5))		
F1-a. Does the participant include documentation of adoption?	To be included after adoption – Appendix F	
F2. For multi-jurisdictional plans, has the governing body of each jurisdiction officially adopted the plan to be eligible for certain FEMA assistance? (Requirement 44 CFR § 201.6(c)(5))		
F2-a. Did each participant adopt the plan and provide documentation of that adoption?	To be included after adoption – Appendix F	
Element F Required Revisions		
Required Revision:		

Element G: High Hazard Potential Dams (Optional)

HHPD Requirements	Location in Plan (section and/or page number)	Met / Not Met
HHPD1. Did the plan describe the incorporation of existing plans, studies, reports and technical information for HHPDs?		
HHPD1-a. Does the plan describe how the local government worked with local dam owners and/or the state dam safety agency?	Section 4.3.2 Dam Failure	
HHPD1-b. Does the plan incorporate information shared by the state and/or local dam owners?	Section 4.3.2 Dam Failure	
HHPD2. Did the plan address HHPDs in the risk assessment?		
HHPD2-a. Does the plan describe the risks and vulnerabilities to and from HHPDs?	Section 4.3.2 Dam Failure	
HHPD2-b. Does the plan document the limitations and describe how to address deficiencies?	Section 4.3.2 Dam Failure	
HHPD3. Did the plan include mitigation goals to reduce long-term vulnerabilities from HHPDs?		
HHPD3-a. Does the plan address how to reduce vulnerabilities to and from HHPDs as part of its own goals or with other long-term strategies?	Section 6.2.2 2025 Mitigation Objectives	
HHPD3-b. Does the plan link proposed actions to reducing long-term vulnerabilities that are consistent with its goals?	Section 6.4.1 2025 Mitigation Initiatives, Appendix H	
HHPD4-a. Did the plan include actions that address HHPDs and prioritize mitigation actions to reduce vulnerabilities from HHPDs?		
HHPD4-a. Does the plan describe specific actions to address HHPDs?	Section 6.4.1 2025 Mitigation Initiatives, Appendix H	
HHPD4-b. Does the plan describe the criteria used to prioritize actions related to HHPDs?	Section 6.4.2 Mitigation Strategy Prioritization and Implementation, Section 6.4.3 Prioritization of Mitigation Actions	
HHPD4-c. Does the plan identify the position, office, department or agency responsible for implementing and administering the action to mitigate hazards to or from HHPDs?	Section 6.4.1 2025 Mitigation Initiatives, Appendix H	
HHPD Required Revisions		

Required Revision:

Element H: Additional State Requirements (Optional)

Element H Requirements	Location in Plan (section and/or page number)	Met / Not Met
This space is for the State to include additional requirements		

Plan Assessment

These comments can be used to help guide your annual/regularly scheduled updates and the next plan update.

Element A. Planning Process

Strengths

- [insert comments]

Opportunities for Improvement

- [insert comments]

Element B. Risk Assessment

Strengths

- [insert comments]

Opportunities for Improvement

- [insert comments]

Element C. Mitigation Strategy

Strengths

- [insert comments]

Opportunities for Improvement

- [insert comments]

Element D. Plan Maintenance

Strengths

- [insert comments]

Opportunities for Improvement

- [insert comments]

Element E. Plan Update

Strengths

- [insert comments]

Opportunities for Improvement

- [insert comments]

Element G. HHPD Requirements (Optional)

Strengths

- [insert comments]

Opportunities for Improvement

- [insert comments]

Element H. Additional State Requirements (Optional)

Strengths

- [insert comments]

Opportunities for Improvement

- [insert comments]

APPENDIX C. MEETING DOCUMENTATION

Appendix C includes meeting agendas, sign-in sheets, and meeting notes (where applicable and available) for meetings convened during the development of the Lancaster County Hazard Mitigation Plan.

MEETING NOTES

Meeting	Lancaster County, Pennsylvania Hazard Mitigation Plan (HMP) Update Planning Team Kickoff Meeting		
Date	September 25, 2023	**Time**	9:00 – 11:00 a.m.
Location	Lancaster County Emergency Management Agency, 28 South Charlotte Street, Manheim, PA		
Attendees	Ben Herskowitz, Deputy Director – Emergency Management, Lancaster County Emergency Management Agency (LEMA)		
	Brooke Bowman, Community Resilience Coordinator & Volunteer Liaison, LEMA		
	Ethan Kauffman, Intern, LEMA		
	Chris Thompson, District Manager, Lancaster County Conservation District		
	Diane Garber, Emergency Management Coordinator, East Hempfield Township and East Petersburg Borough Emergency Management Agency		
	Chris DeLong, Deputy Chief, Lancaster City Bureau of Fire		
	Tony Subbio, Project Manager, Tetra Tech		

Discussion Points

This section summarizes each discussion point addressed during the Planning Team Kickoff Meeting.

Project Scope

Mr. Subbio briefly reviewed the planning process that will be used to update the HMP, as it was described in Tetra Tech's proposal and contract. Mr. Subbio described that the mitigation strategy will be developed based on the results of the risk assessment and capabilities assessment.

Hazards of Concern

The Planning Team discussed hazards that have impacted the County. Attendees identified the following impacts and issues related to hazards:

- Drought and "fire weather" increase the possibility of wildfires.
- Stormwater flooding has become a larger issue.
- There was a leak of ammonia at the Kunzler facility.
- Old gas infrastructure is contributing to explosions.
- There have been some major manure spills.
- Avian influenza has had an impact in the County.
- The US Department of Agriculture Natural Resource Conservation Service has been studying dams in the County for removal.
- Lithium-ion batteries are becoming more prevalent.
- The County is within the 50-mile ingestion exposure pathway emergency planning zone for the Salem and Hope Creek nuclear power plants in addition to the Limerick power plant.
- Climate change will be addressed in all hazard profiles.
- The impacts to livestock will be addressed in all hazard profiles.

MEETING NOTES

The hazards of concern are as follows:

- Dam Failure
- Drought
- Earthquake
- Environmental Hazards – Gas and Liquid Pipelines
- Environmental Hazards – Hazardous Materials Releases
- Flood, Flash Flood, and Ice Jam
- Hailstorm
- Invasive Species
- Nuclear Incident
- Pandemic and Infectious Disease
- Radon Exposure
- Subsidence, Sinkholes
- Tornado, Windstorm
- Transportation Accidents
- Utility Interruption
- Wildfire
- Winter Storm

Hazard Mitigation Steering Committee (HMSC) Members

Mr. Subbio described the role of the HMSC and the organizations to be represented.

Mr. Subbio stated that the Pennsylvania Emergency Management Agency (PEMA) and Federal Emergency Management Agency (FEMA) Region III have recently begun to require that municipal authorities and special districts (including school districts) be treated as their own jurisdictions similar to municipalities. These include the Manheim Area Sewer Authority and the County's single fire district. Authorities and districts will have to meet participation requirements to be eligible to adopt the HMP and potentially receive mitigation funding.

Attendees discussed additional stakeholders to involve in the planning process, including social services agencies that are part of the County's Voluntary Organizations Active in Disaster (VOAD) group; Norfolk Southern, Amtrak, and the Landisville Railroad; the Lancaster/Lebanon Intermediate Unit; the Penn State University Extension Office; the Lancaster County Career and Technical Center; and others. Organizations that serve socially vulnerable populations include the Office of Aging, Veterans' Affairs, Behavioral Health and Developmental Services, the Housing and Redevelopment Authority, and Church World Services. The Conservation District and Farmland Trust have relationships with the Amish community.

Public and Stakeholder Outreach

Attendees discussed methods of outreach that will be used in the planning process.

Mr. Herskowitz will determine if the team will use the County website or if Tetra Tech will develop a separate project website. LEMA maintains several email listservs. Ms. Bowman requested lists of stakeholders from other Planning Team members so that she can create new listservs.

Information will be sent to multiple officials (e.g., elected officials, stormwater officers, planning officers) in each jurisdiction. Outreach to jurisdictions will all pass through Ms. Bowman. Outreach intended for other stakeholders will pass from Ms. Bowman to Planning Team members, who will send the information to the stakeholders and copy Ms. Bowman on the emails.

LEMA will leverage its Facebook, X (formerly Twitter), Nextdoor, LinkedIn, and Instagram social media accounts. Nextdoor is used by many municipalities in the County.

Mr. DeLong reported that Lancaster City sends messages in English and Spanish, translated by staff who are fluent.

Project Schedule

Mr. Subbio reviewed the project schedule and key milestones. The risk assessment and capabilities assessment will be complete by February 2024. The mitigation strategy will be developed by April 2024. The draft HMP will be complete in May 2024.

Next Steps

- Mr. Subbio will send Mr. Thompson a list of dams in the County.
- Mr. Thompson will provide a list of municipal authorities in the County.
- Mr. Herskowitz will determine if the team will use the County website or if Tetra Tech will develop a separate project website.
- Planning Team members will send lists of stakeholders to Ms. Bowman so she can create new email listservs for this planning process.
- The Steering Committee Kickoff Meeting will be scheduled for the week of October 30–November 3, 2023.
- Tetra Tech will continue to work with the County to identify and collect GIS data.
- Tetra Tech will develop the Problem Identification Form.
- Tetra Tech will develop the stakeholder surveys.
- Tetra Tech and the County will schedule the HMSC Kickoff Meeting.
- Tetra Tech will continue to profile the hazards of concern.

AGENDA

LANCASTER COUNTY 2024 HAZARD MITIGATION PLAN UPDATE
Planning Team Kickoff Meeting

Monday, September 25, 2023 | 9:00 – 11:00 a.m.

1. **Welcome and Introductions**

2. **Project Scope**
   a. Risk Assessment
   b. Capability Assessment
   c. Mitigation Strategy
   d. Draft Development

3. **Hazards of Concern**
   - Dam Failure
   - Drought
   - Earthquake
   - Environmental Hazards – Gas and Liquid Pipelines
   - Environmental Hazards – Hazardous Materials Releases
   - Flood, Flash Flood, and Ice Jam
   - Hailstorm
   - Invasive Species
   - Nuclear Incident
   - Pandemic and Infectious Disease
   - Radon Exposure
   - Subsidence, Sinkholes
   - Tornado, Windstorm
   - Transportation Accidents
   - Utility Interruption
   - Wildfire
   - Winter Storm

4. **Hazard Mitigation Steering Committee Members**
   - County Departments
   - Municipalities
   - Sewer and Water Authorities
   - Schools and School Districts
   - Social service providers
   - Watershed Associations
   - Dam owners and operators
   - Higher Ed
   - Healthcare
   - Prisons
   - Media
   - Emergency Response Organizations
   - American Red Cross
   - Utilities
   - Major Businesses
   - Railroad
   - SCTF
   - PA Turnpike Commission
   - Commonwealth Agencies
   - Federal Agencies
   - Neighboring Counties

AGENDA

LANCASTER COUNTY 2024 HAZARD MITIGATION PLAN UPDATE
Planning Team Kickoff Meeting

Monday, September 25, 2023 | 9:00 – 11:00 a.m.

5. **Public and Stakeholder Outreach**
    a. Project Website
    b. Problem Identification Form
    c. Stakeholder Surveys
    d. Social Media
    e. Community Rating System (CRS) Meeting
    f. Other

6. **Project Schedule**

7. **Next Steps**
    a. Identify points of contact
    b. Collect GIS data
    c. Request NFIP data
    d. Develop the project website
    e. Develop the Problem Identification Form
    f. Develop Stakeholder Surveys
    g. Conduct the Hazard Mitigation Steering Committee Kickoff Meeting
    h. Profile hazards of concern

8. **Questions**

Project Schedule

Task	Timeframe
Project Management	• Project Kickoff Meeting conducted on August 7, 2023 • Weekly email progress reports provided to the County each Monday throughout the planning process • Monthly status reports provided to the Lancaster County project lead by close of business on the first Friday of each month • Quarterly progress reports submitted to PEMA by the 15th of October 2023, January 2024, April 2024, July 2024, October 2024, and January 2025 (following completion of the planning process) • Project Closeout Meeting upon the HMP receiving "approval pending adoption" status from FEMA
Task 1: Organize a Hazard Mitigation Steering Committee	• Planning Team Kickoff Meeting conducted on September 25, 2023 • HMSC members identified NLT September 29, 2023 • Initial HMSC meeting conducted NLT October 26, 2023 • Worksheets distributed at the Initial HMSC Meeting and within one week of the meeting • Stakeholder meetings conducted NLT December 8, 2023 • Planning Team CRS meeting conducted NLT January 31, 2024 • Outreach to stakeholders conducted throughout the planning process
Task 2: Review and Incorporate Plans	• Conducted from project kickoff through January 17, 2024
Task 3: Conduct Capability Assessment	• Conducted from Planning Team Kickoff Meeting through February 1, 2024
Task 4: Conduct a Comprehensive Risk Assessment	• Conducted from Planning Team Kickoff Meeting through February 1, 2024
Task 5: Review the Capability Assessment and Risk Assessment	• Review the risk and capability assessments with the County and Planning Team by February 15, 2024 • Public meeting conducted NLT March 6, 2024 • Collection of public comments through March 20, 2024
Task 6: Develop Mitigation Strategy	• Review and update mitigation planning goals and objectives by March 18, 2024 • Mitigation strategy workshop conducted NLT March 27, 2024 • Work with the County, Planning Team, and HMSC to develop new mitigation strategies NLT April 19, 2024 • Public HMSC meeting to present the draft mitigation strategy and receive comments to be conducted NLT May 2, 2024
Task 7: Define Plan Maintenance	• Defined NLT February 28, 2024 • Conduct BATool webinar by November 15, 2024
Task 8: Prepare the Updated HMP Draft	• Compile draft plan and update sections of the 2019 HMP through May 14, 2024 • Complete in-house review of the HMP update and complete FEMA's Local Plan Review Tool by May 14, 2023

Task	Timeframe
Task 9: Review and Finalize the Updated HMP Draft	• Review the draft HMP with the County by May 28, 2024 • Incorporate changes identified by the County within five days of reviewing the draft with the County • Post the draft plan for public review on the project website on June 4, 2024 • Public review period from June 4, 2024 through July 3, 2024 • Conduct a public review meeting to solicit comments from stakeholders and the public NLT July 3, 2024 • Finalize draft HMP NLT July 10, 2024
Task 10: Submit the Updated HMP Draft for Formal Reviews	• Plan submission to PEMA NLT July 11, 2024 • PEMA review period from July 12, 2024 through August 7, 2024 • Plan submission to FEMA NLT August 13, 2024 • FEMA review period from August 14, 2024 through September 27, 2024 • Conference call to discuss FEMA comments NLT October 2, 2024 • Update and resubmit draft HMP to FEMA Region III NLT October 17, 2024
Task 11: Facilitate the Adoption of the Updated HMP	• Final plan delivery to Lancaster County and PEMA upon receiving "approval pending adoption" status NLT November 8, 2024 • Facilitate the adoption of the updated HMP through December 20, 2024

LANCASTER COUNTY 2024 HAZARD MITIGATION PLAN UPDATE
Planning Team Kickoff Meeting

SIGN-IN

Monday, September 25, 2023 | 9:00 – 11:00 a.m.

NAME AND TITLE	AGENCY/ORGANIZATION	E-MAIL ADDRESS	TELEPHONE
Chris Delong, Deputy	Lancaster City	cdelong@cityoflancasterpa.gov	717-740-05[illegible]
Brooke Bowman Community Resilience	Lancaster County EMA	brbowman@lancastercountypa.gov	717 664 1340
Ben Berkowitz	LCNC EMA	BBERKOWITZ@lancastercountypa.gov	(717) 664-1220
Diane Garber	EHT / EpB EMA	dgarber@easthempfield.org	717-725-5010
Chris Thompson	Lanc. Conservation Dist.	Christopher Thompson @ Lancasterconservation.org	717-881-9887
Ethan Kauffman	Lancaster County EMA	emh205@lcnc.co.pa.us	717-207-7505
Tony Subbio/PM	Tetra Tech, Inc.	tony.subbio@tetratech.com	717-859-5654

MEETING NOTES

Meeting	Lancaster County, Pennsylvania Hazard Mitigation Plan (HMP) Update Hazard Mitigation Steering Committee (HMSC) Kickoff Meeting		
Date	October 31, 2023	**Time**	2:00 – 4:00 p.m.
Location	East Hempfield Township Building, 1700 Nissley Road, Landisville, PA		
Attendees	Ben Herskowitz, Deputy Director – Emergency Management, Lancaster County Emergency Management Agency (LEMA)		
	Brooke Bowman, Community Resilience Coordinator & Volunteer Liaison, LEMA		
	Andrew Lavin, Training Supervisor, Lancaster County-Wide Communications		
	John Wettlaufer, Detective Sergeant/SERT Commander, Lancaster County District Attorney's Office		
	Bob Devonshire, Director of General Services, Lancaster County		
	Mary Frey, Principal Planner, Lancaster County Planning Department		
	Milimar Armer, Buyer III, Lancaster County Purchasing Department		
	Vincent Cash, Buyer 1, Lancaster County Purchasing Department		
	Jose G. Valdes, Lieutenant Sheriff, Lancaster County Sheriff's Office		
	Chris Riggs, Lancaster County Sheriff's Office		
	Drew Fredericks, Director, Lancaster County Youth Intervention Center		
	Diane Garber, Emergency Management Coordinator, East Hempfield Township and East Petersburg Borough Emergency Management Agency		
	Rick Ely, EMC, Eden Township		
	Jason Skonberg, Deputy EMC, Eden Township		
	Randy Gockley, EMC, Ephrata Borough		
	Chris DeLong, Deputy Chief, Lancaster City Bureau of Fire; EMC, Lancaster City		
	Duane Ober, EMC and Fire Commissioner, Lititz Borough and Warwick Township		
	Philip Colvin, EMC, Mount Joy Borough		
	Mark Hiester, Manager, Penn Township		
	Mark Heckaman, Director of Operations and Safety, Donegal School District		
	Robert Meringer, Maintenance Supervisor, Donegal School District		
	Jacy Clugston Hess, Assistant Superintendent, Ephrata Area School District		
	Tom Shumaker, Safety Coordinator, Warwick School District		
	Bob Wegman, Director-Public Safety, Lancaster Bible College		
	Katharine DeSantis, Public Policy Coordinator, Lancaster Chamber		
	Tim Klein, Facilities Director, Lancaster County Career and Technology Center		
	Cameron Zettlemoyer, Penn State Health		
	Kim Stonebraker, Emergency Manager, Wellspan Health		
	Tony Subbio, Project Manager, Tetra Tech		

Discussion Points

This section summarizes each discussion point addressed during the HMSC Kickoff Meeting.

MEETING NOTES

Welcome and Introductions

Ms. Bowman welcomed the group. Attendees introduced themselves and identified the following areas of focus for the planning effort:

- Several attendees were concerned about the increase in flooding in the county, particularly as it relates to stormwater management.
- Mr. Herskowitz expressed a concern about hazardous materials near waterways and water bodies.
- Mr. Gockley expressed concern for the number of people with access and functional needs in the county, along with potential impacts of wind and severe weather on personal care homes and schools.
- Warwick School District is concerned with flooding and the rail line.
- Mr. Zettlemoyer reported that Penn State Health uses information from the HMP for their hazard vulnerability assessments.
- Mr. Wegman stated that there is a pipeline through the Lancaster County Bible College's campus and asked how the college can fit into the county emergency management system.

Overview of Hazard Mitigation

Mr. Subbio provided a brief overview of hazard mitigation for attendees. He defined hazard mitigation and statistics regarding the benefits of mitigation versus their costs.

Planning Process

Mr. Subbio provided an overview of the HMP planning process, then described the steps in detail. This section summarizes the detailed description of each step.

The first step involves examining the hazards of concern for Lancaster County. The hazards of concern that will be analyzed in the HMP are as follows:

- Dam Failure
- Drought
- Earthquake
- Environmental Hazards – Gas and Liquid Pipelines
- Environmental Hazards – Hazardous Materials Releases
- Flood, Flash Flood, and Ice Jam
- Hailstorm
- Invasive Species
- Nuclear Incident
- Pandemic and Infectious Disease
- Radon Exposure
- Subsidence, Sinkholes
- Tornado, Windstorm
- Transportation Accidents
- Utility Interruption
- Wildfire
- Winter Storm

Attendees provided the following input and insight regarding the hazards of concern:

- Mr. Gockley stated that residents are looking to local officials for information on climate change and drought.
- Mr. Hiester reported that Penn Township is developing a drought contingency plan.

- Mr. Herskowitz stated that pipeline operators provide training for local responders three to four times per year.
- Flooding is a problem in the following areas:
    - Conestoga River through Lancaster City
    - County parks next to waterways; equipment needs to be moved
    - Bellview Drive in Ephrata Borough
    - The intersection of Eden Road and May Post Office Road in Eden Township
- Regarding invasive species:
    - Stinkbugs are a problem, while the spotted lanternfly is not as much of a concern as it was.
    - Mr. Gockley stated that bamboo is becoming a problem in Ephrata Borough.
    - Tree of Heaven, Chocolate Vine, and hemlock species are becoming problems.
    - Snakeheads, rusty crayfish, and zebra mussels are becoming problems in waterways.
- RSV and hepatitis are emerging as impactful infectious agents.
- Regarding sinkholes:
    - A sinkhole near Willow Street is re-emerging in Lancaster City.
    - Aging infrastructure leaking is causing sinkholes.
    - There was a large sinkhole in Ephrata Borough four years ago.
    - The geology between Denver Borough and Mount Joy Borough is problematic for sinkholes.
- Manure spills in Penn Township are a problem. Also, there was a 5,000-gallon manure spill in Eden Township.
- Attendees were concerned about the number of nursing homes in the county as it relates to power outages.
- Open fields allow drifting snow to become a problem on roadways throughout the county.

Hazards of concern are examined in the risk assessment process. After the risk assessment is complete, Tetra Tech and Lancaster County will conduct a Risk Assessment Review Meeting to collect feedback on the results.

Tetra Tech and Lancaster County will assess jurisdictions' capabilities to implement hazard mitigation. These capabilities include plans, regulations, staff expertise, access to internal and external funding, training of key staff, and education and outreach.

Based on the risk assessment and capabilities assessment, plan participants will update the mitigation strategy. Municipalities and other stakeholders will identify mitigation actions they have taken over the last 5 years. The Steering Committee will develop a set of mitigation goals and objectives for the updated HMP. Tetra Tech's planners will work with Lancaster County and other stakeholders to identify specific, implementable mitigation actions for inclusion in the updated plan. To that end, a Mitigation Strategy Workshop will be conducted to help participants identify solutions to the problems posed by hazards in the county, and the mitigation strategy will be reviewed at a public meeting.

Throughout this process, Tetra Tech will be developing the HMP document. The risk assessment, capabilities assessment, and mitigation strategy will each have their own sections of the HMP. Other

sections of the HMP include an updated County Profile section, which describes the nature of the county and its population; the Planning Process section, which documents the steps Lancaster County took to update the HMP, and the Plan Maintenance section, which documents how the HMP will be reviewed and updated over its 5-year lifespan.

Mr. Subbio then described the plan review and approval process. He noted that the Pennsylvania Emergency Management Agency (PEMA) usually requests only minor changes, but FEMA almost always asks for substantial changes based on best practices from other jurisdictions in FEMA Region III. Tetra Tech will update the HMP as necessary until it is granted Approvable Pending Adoption (APA) status by FEMA.

Mr. Subbio then described recent changes to FEMA guidance and the template adoption resolutions. The new template from FEMA includes language that the jurisdictions can adopt the plan while it is undergoing FEMA's review and that required revisions will not result in the plan needing to be re-adopted. The goal for the plan to be adopted is November 2024.

Following the approval of the updated plan, Lancaster County will continue to conduct regular review meetings with the HMSC. In addition, members of the HMSC should discuss the HMP and hazard mitigation at other stakeholder meetings. Most importantly, Lancaster County and municipalities should work to implement the plan.

Review Schedule

Mr. Subbio reviewed the project schedule. The draft of the updated HMP will be complete by mid-May 2024 if information is provided to Tetra Tech in a timely manner. That will allow time for the public, PEMA, and FEMA reviews to occur and APA status to be achieved by early November 2024.

Introduce Worksheets

Mr. Subbio reviewed the following set of information-gathering worksheets that municipalities are asked to complete:

- Hazard Identification and Risk Evaluation Worksheet
- Capability Assessment Survey
- Local Compliance with the National Flood Insurance Program (NFIP) Checklist
- Mitigation Strategy 5-Year Mitigation Plan Review

Mr. Subbio explained that FEMA Region III recently began treating school districts, municipal authorities, and other special districts as their own jurisdictions. These organizations will now have to meet the same participation requirements as the municipalities must meet to be eligible for FEMA's mitigation funding. Mr. Subbio stated that non-municipality jurisdictions would not have to complete the Local Compliance with the NFIP Checklist and would likely not have any actions in the 2020 HMP on which to report progress in the Mitigation Strategy 5-Year Mitigation Plan Review.

Public and Stakeholder Outreach

Mr. Subbio then described the public and stakeholder outreach methods that are being used to secure as much participation in the planning process as possible. A project website is being developed to

provide information on the planning process. Tetra Tech is developing a set of information-gathering online surveys for different stakeholder groups (e.g., neighboring counties, the general public, and other stakeholders) to provide information on how hazards affect them and their organizations and what needs they may have. Tetra Tech will create a simple online mapping tool in which a person can identify a location where hazards can or have affected a community. Stakeholder organizations will be invited to attend HMSC meetings held throughout the planning process. Finally, there will be two public meetings during the planning process: one to review the risk assessment results and one to review the final draft.

Next Steps

The following next steps were identified at the close of the meeting:

- Organizations will send any relevant documents, reports, plans, etc., to Lancaster County or Mr. Subbio for review and incorporation into the HMP.
- Tetra Tech and Lancaster County will distribute the set of standard worksheets to jurisdictional officials.
- Tetra Tech will continue to update the hazard profiles.

The meeting adjourned at 4:00 p.m.

TETRA TECH

complex world | CLEAR SOLUTIONS™

Lancaster County Hazard Mitigation Plan

2024 Update



Hazard Mitigation Steering Committee Kickoff Meeting

October 31, 2023
2:00 – 4:00 p.m.

1

Agenda

- Welcome and Introductions
- Overview of Hazard Mitigation
- Planning Process
- Review Schedule
- Introduce Worksheets
- Public and Stakeholder Outreach
- Next Steps
- Questions

2

Welcome and Introductions

- Name, Title, and Organization
- What are your areas of focus for the HMP?



3

What is hazard mitigation?

Any sustained action taken to reduce or eliminate long-term risk to life and property from a hazard event



"…provides the blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs, and resources, and local ability…" (CFR).

4

Mitigation Works!

- The nation saves **$6** for every **$1** spent through mitigation grants, funded through select federal agencies.

National Benefit-Cost Ratio (BCR) Per Peril *BCR numbers in this study have been rounded	Beyond Code Requirements	Federally Funded
Overall Hazard Benefit-Cost Ratio	$4:1	$6:1
Riverine Flood	$5:1	$7:1
Hurricane Surge	$7:1	Too few grants
Wind	$5:1	$5:1
Earthquake	$4:1	$3:1
Wildland-Urban Interface Fire	$4:1	$3:1

5

Overview of Hazard Mitigation (Cont.)

Questions?

6

Planning Process

- Update the Risk Assessment
- Update the Capabilities Assessment
- Update the Mitigation Strategy
- Update Other Sections of the HMP
- Submit the HMP for Review
- Adopt the HMP
- Implement the HMP

7

Planning Process
Update the Risk Assessment

- Hazards of Concern
  - Dam Failure
  - Drought
  - Earthquake
  - Environmental Hazards – Gas and Liquid Pipelines
  - Environmental Hazards – Hazardous Materials Releases
  - Flood, Flash Flood, and Ice Jam
  - Hailstorm
  - Invasive Species
  - Nuclear Incident
  - Pandemic and Infectious Disease
  - Radon Exposure
  - Subsidence, Sinkholes
  - Tornado, Windstorm
  - Transportation Accidents
  - Utility Interruption
  - Wildfire
  - Winter Storm

8

Planning Process
Update the Capabilities Assessment

- Capabilities
  - Planning and Regulatory Capability
  - Administrative and Technical Capability
  - Financial Capability
  - Education and Outreach
  - Self-Assessment of Capability

9

Planning Process
Update the Mitigation Strategy

- Review Goals and Objectives
- Determine Status of Mitigation Actions
- Identify New Mitigation Actions/Projects
  - ***Focus on specific, implementable actions!***
- Conduct Mitigation Strategy Workshop
- Public Meeting to Review Mitigation Strategy

10

Planning Process
Update Other Sections of HMP

- County Profile
  - Updated data
- Planning Process
  - Documentation of the update process
- Plan Maintenance
  - Incorporation into other plans, as well as determining ways to incorporate other plans into the updated HMP

11

Planning Process
Submit the HMP for Review

- Review Draft with Planning Team
- 30-day Public Comment Period
- Conduct Public Meeting to Review the Draft
- Submit for Pennsylvania Emergency Management Agency (PEMA) Review
  - 14 to 28 days
- Submit for Federal Emergency Management Agency (FEMA) Review
  - 45 days
- "Approvable Pending Adoption" Status

12

Planning Process
Adopt the HMP

- County and at least one participating municipality
- FEMA Approval
- Adoption Goal – November 2024

13

Planning Process
Implement the HMP

- Regular Planning Team Meetings
- Stakeholder Meetings
- Implement Mitigation Actions and Projects
  - Integrate actions where appropriate

14

Review Schedule

- Risk Assessment
  - February 2024
- Capabilities Assessment
  - February 2024
- Mitigation Strategy
  - March 2024
- Draft Plan by mid-May 2024
- Submit to PEMA by mid-July 2024
- Submit to FEMA by mid-August 2024
- "Approvable Pending Adoption" by early November 2024

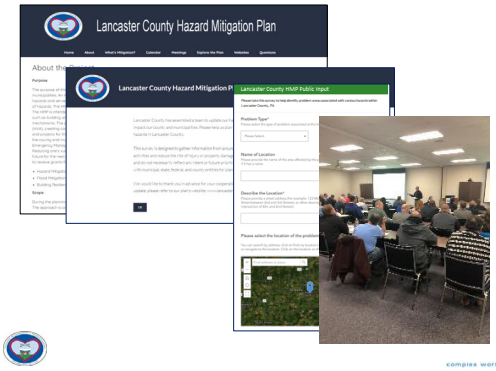
15

Introduce Worksheets

- Hazard Identification and Risk Evaluation Worksheet
- Capability Assessment Survey
- Local Compliance with the NFIP Checklist
- Mitigation Strategy 5-Year Mitigation Plan Review

16

Public and Stakeholder Outreach



17

Next Steps

- Document Request
- Complete Municipal Worksheets
- Update the Risk Assessment

18

Questions?

Thank you for your time!

19

Contacts

Brooke Bowman
brbowman@lancastercountypa.gov
(717) 664-1340

Tony Subbio
tony.subbio@tetratech.com
(717) 839-5654

20

AGENDA

LANCASTER COUNTY 2024 HAZARD MITIGATION PLAN UPDATE

Hazard Mitigation Steering Committee Kickoff Meeting

Tuesday, October 31, 2023 | 2:00 – 4:00 p.m.

1. **Welcome and Introductions**
2. **Overview of Hazard Mitigation**
3. **Planning Process**
   a. Update the Risk Assessment
   b. Update the Capabilities Assessment
   c. Update the Mitigation Strategy
   d. Update Other Sections of the HMP
   e. Submit the HMP for Review
   f. Adopt the HMP
   g. Implement the HMP
4. **Review Schedule**
5. **Introduce Worksheets**
6. **Public and Stakeholder Outreach**
7. **Next Steps**
8. **Questions**

Hazard Identification and Risk Evaluation Worksheet

Name: _____ **Title:** _____

Jurisdiction: _____ **Email:** _____

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought		
Earthquake		
Flood, Flash Flood, Ice Jam		
Hailstorms		
Invasive Species		
Pandemic		
Radon Exposure		
Subsidence and Sinkholes		
Tornado and Windstorm		
Wildfire		
Winter Storm		
Human-Caused Hazards		
Dam Failure		
Environmental Hazards (Hazmat)		
Nuclear Incidents		
Transportation Accidents		
Utility Interruption		

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Capability Assessment Survey

Name: _____ **Title:** _____

Jurisdiction: _____ **Email:** _____

Phone Number: _____

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan					
Emergency Operations Plan					
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan					
NFIP					
NFIP – Community Rating System					
Floodplain Regulations					
Floodplain Management Plan					
Zoning Regulations					

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Subdivision Regulations					
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)					
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance					
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation					
Building Code					
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)				
Planners or engineers (with natural and/or human caused hazards knowledge)				
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)				
Emergency Manager				
Floodplain Manager				
Land Surveyors				
Scientists or staff familiar with the hazards of the community				
Personnel skilled in GIS and/or FEMA's HAZUS program				
Grant writers or fiscal staff to handle large or complex grants				
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming				
Community Development Block Grants (CDBG)				
Special Purpose Taxes				
Gas / Electric Utility Fees				
Water / Sewer Fees				
Stormwater Utility Fees				
Development Impact Fees				
General Obligation, Revenue, and/or Special Tax Bonds				
Partnering Arrangements or Intergovernmental Agreements				
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification				
StormReady certification				
Natural disaster or safety related school programs				
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)				
Public-private partnership initiatives addressing disaster-related issues				
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.				
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability			
Administrative and Technical Capability			
Financial Capability			
Education and Outreach			

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: _____ **Title:** _____

Jurisdiction: _____ **Email:** _____

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.		
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.		
c. Does the municipality support requests for map updates?	If yes, specify how.		
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.		
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.		
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.		

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.		

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.		
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.		
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.		
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.		
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.		
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.		

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.		

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.		
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.		

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	
Is the floodplain management an auxiliary function?	Community FPA	
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	
What are the barriers to running an effective NFIP program in the community?	Community FPA	
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	
Are there any outstanding compliance issues (i.e., current violations)?		
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Mitigation Strategy 5-Year Mitigation Plan Review

Name: _____ Title: _____

Jurisdiction: _____ Email: _____

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goals and Objectives		Comments
Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.						
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.						
LC-3	Action 3	Elevate structures at risk of flooding.						
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.						
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.						
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.						
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.						
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.						
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.						
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.						

Project Schedule

Task	Timeframe
Project Management	• Project Kickoff Meeting conducted on August 7, 2023 • Project Closeout Meeting upon the HMP receiving "approval pending adoption" status from FEMA
Task 1: Organize a Hazard Mitigation Steering Committee (HMSC)	• Planning Team Kickoff Meeting conducted on September 25, 2023 • HMSC Kickoff Meeting conducted on October 31, 2023 • Worksheets distributed at the HMSC Kickoff Meeting and via email within one week of the meeting • Stakeholder meetings conducted in December 2023 – January 2024 • Planning Team CRS meeting conducted NLT January 31, 2024 • Outreach to stakeholders conducted throughout the planning process
Task 2: Review and Incorporate Plans	• Conducted through January 2024
Task 3: Conduct Capability Assessment	• Conducted through February 1, 2024
Task 4: Conduct a Comprehensive Risk Assessment	• Conducted through February 1, 2024
Task 5: Review the Capability Assessment and Risk Assessment	• Review the risk and capability assessments with the County and Planning Team by February 15, 2024 • Public meeting conducted NLT March 6, 2024 • Collection of public comments through March 20, 2024
Task 6: Develop Mitigation Strategy	• Review and update mitigation planning goals and objectives by March 18, 2024 • Mitigation strategy workshop conducted NLT March 27, 2024 • Work with the County, Planning Team, and HMSC to develop new mitigation strategies NLT April 19, 2024 • Public HMSC meeting to present the draft mitigation strategy and receive comments to be conducted NLT May 2, 2024
Task 7: Define Plan Maintenance	• Defined NLT February 28, 2024 • Conduct BATool webinar by November 15, 2024
Task 8: Prepare the Updated HMP Draft	• Compile draft plan and update sections of the 2019 HMP through May 14, 2024 • Complete in-house review of the HMP update and complete FEMA's Local Plan Review Tool by May 14, 2024
Task 9: Review and Finalize the Updated HMP Draft	• Review the draft HMP with the County by May 28, 2024 • Incorporate changes identified by the County within five days of reviewing the draft with the County • Post the draft plan for public review on the project website on June 4, 2024 • Public review period from June 4, 2024 through July 3, 2024 • Conduct a public review meeting to solicit comments from stakeholders and the public NLT July 3, 2024 • Finalize draft HMP NLT July 10, 2024

Task	Timeframe
Task 10: Submit the Updated HMP Draft for Formal Reviews	• Plan submission to PEMA NLT July 11, 2024 • PEMA review period from July 12, 2024 through August 7, 2024 • Plan submission to FEMA NLT August 13, 2024 • FEMA review period from August 14, 2024 through September 27, 2024 • Conference call to discuss FEMA comments NLT October 2, 2024 • Update and resubmit draft HMP to FEMA Region III NLT October 17, 2024
Task 11: Facilitate the Adoption of the Updated HMP	• Final plan delivery to Lancaster County and PEMA upon receiving "approval pending adoption" status NLT November 8, 2024 • Facilitate the adoption of the updated HMP through December 20, 2024

LANCASTER COUNTY 2024 HAZARD MITIGATION PLAN UPDATE
Hazard Mitigation Steering Committee (HMSC) Kickoff Meeting

SIGN-IN

Tuesday, October 31, 2023 | 2:00 – 4:00 p.m.

NAME AND TITLE	AGENCY/ORGANIZATION	E-MAIL ADDRESS	TELEPHONE
Tom Shumaker SAFETY COORDINATOR	WARWICK SCHOOL DISTRICT	TSHUMAKER@WARWICKSD.ORG	717-579-4547
RICK ELY Eden Twp EMC	Eden Twp EMA	edentwpemc@comcast.net	484-445-1933
Randy Gockley EMC	Ephrata Boro EMA	randygockley56@gmail.com	717-466-9930
Vincent Cash, Lancaster County Purchasing Dept. Buyer 2	Purchasing Department, County of Lancaster	vcash@lancastercountypa.gov	717-327-1191
TIM KLEIN FACILITIES DIRECTOR	LANCASTER CTC	TKLEIN@LANCASTERCTC.EDU	717-869-2008
BEN HERSHKOWITZ DEP. DIR.	LEMA	bhershkowitz@lancastercountypa.gov	717 664 1206
Cameron Zettlemoyer	Penn State Health	CZettlemoyer@pennstatehealth.psu.edu	267-644-7684
Jacy Clugston Hess Asst. Superintendent	Ephrata Area SD	jacy_hess@easdpa.org	717-721-1400
Drew Fredericks	Lancaster Co. Youth Internship	frederid@lancastercountypa.gov	717-299-7821
CHRIS RIGGS	SHERIFF'S OFFICE	CRIGGS@lancastercountypa.gov	717 209 3165

LANCASTER COUNTY 2024 HAZARD MITIGATION PLAN UPDATE
Hazard Mitigation Steering Committee (HMSC) Kickoff Meeting

SIGN-IN

Tuesday, October 31, 2023 | 2:00 – 4:00 p.m.

NAME AND TITLE	AGENCY/ORGANIZATION	E-MAIL ADDRESS	TELEPHONE
JASON SKONBERG DEPUTY EMC	EDEN TOWNSHIP EMA	EDENTWPDEMC@COMCAST.NET	717-575-4827
Bob Wegman Director Public Safety	Lancaster Bible College	RWEGMAN@LBC.EDU	717-682-6391
MICHAEL HARMER BUYER III	COUNTY OF LANCASTER PURCHASING	MICHARMER@lancastercountypa.gov	717 299 8257
Bob Devonshire Director of General Services	County of Lancaster	devonshb@LancasterCountyPA.Gov	717-299-8323
MARK HECKAMAN DIR OPS + SAFETY	DONEGAL S.D	MARK.HECKAMAN@DONEGALSD.ORG	717.492.1210
Andrew Lavin Training Supervisor	LCWC	ALAVIN@LCWC911.US	717-664-1111
Robert Meringer Maintenance Supervisor	Donegal S.D.	Robert.Meringer@donegalSD.org	717-808-5222
Chris DeLong Lancaster City EMC	Lancaster City	cdelong@cityoflancasterpa.gov	717-740-0588
JOSE G VALDES LIEUTENANT SHERIFF	LANCASTER COUNTY SHERIFF	JValdes@lancastercountypa.gov	717-278-6046
Katharine DeSantis Public Policy Coordinator	Lancaster Chamber	KDesantis@lancasterchamber.org	717-552-6605

LANCASTER COUNTY 2024 HAZARD MITIGATION PLAN UPDATE
Hazard Mitigation Steering Committee (HMSC) Kickoff Meeting

SIGN-IN

Tuesday, October 31, 2023 | 2:00 – 4:00 p.m.

NAME AND TITLE	AGENCY/ORGANIZATION	E-MAIL ADDRESS	TELEPHONE
JOHN WETTLAUFER DET. SGT. / SERT CMDR	LANCASTER COUNTY DA's	jwettlaufer@lancastercountypa.gov	7172955948
Mary Frey Principal Planner	Lanc Co Planning Dept	frey@lancastercountypa.gov	717-299-8333
Mark Hrastar Manager	Penn T	Mhrastar@pennt.com	610-574-5908
Philip Colvin Mount Joy Boro EMC	Mount Joy Boro	ema@mountjoypa.org	717-804-4473
Kim Stonebraker WellSpan EM	WellSpan	KSTONEBRAKER5@wellspan.org	7176156263
Duane Ober ~~Warwick~~ EMC & Fire Commissioner	Warwick Twp Lititz Boro	dober@warwicktownship.org	717-224-0114
Brooke Bowman Community Resilience Coordinator	Lancaster County EMA	brbowman@lancastercountypa.gov	717 664 1340
Diane Garber, Asst. Mgr., EMC	East Hempfield Twp	dgarber@easthempfield.org	717-898-3100 x268
Tony Subbio, PM	Tetra Tech	tony.subbio@tetratech.com	717-839-5654

MEETING NOTES

Meeting	Lancaster County, Pennsylvania Hazard Mitigation Plan (HMP) Update Emergency Management Coordinator's Meeting		
Date	April 9, 2024	**Time**	10:00 a.m. – 12:00 p.m.
Location	Lancaster County Public Safety Training Center, 101 Champ Blvd., Manheim, PA 17545		
Attendees	Ben Herskowitz, Deputy Director – Emergency Management, Lancaster County Emergency Management Agency (LEMA)		
	Brooke Bowman, Community Resilience Coordinator & Volunteer Liaison, LEMA		
	Richard Steeg, Volunteer, LEMA		
	Steve Bailey, Emergency Management Coordinator, Marietta Borough		
	Jay Barninger, Emergency Management Coordinator, Columbia Borough		
	Zachary Gibbons, Hazardous Materials Administrator, LEMA		
	Bobby Jo Epstein, Intern, LEMA		
	Curtis Thompson, Emergency Management Coordinator, Elizabethtown Borough, Mount Joy Township, and West Donegal Township		
	Gene Duncan, Deputy Emergency Management Coordinator, Lancaster City		
	Ken Barton, Emergency Management Coordinator, West Lampeter EMA		
	Diane Garber, Emergency Management Coordinator, East Hempfield Township		
	John Kottmyer, Chief Fire Official, East Hempfield Township		
	Jason Skonberg, Deputy Emergency Management Coordinator, Eden Township		
	Mike Hall, Emergency Management Coordinator, Pequea Township		
	Brett Fassnacht, Emergency Management Coordinator, Lancaster Township & Training & Exercise Coordinator, LEMA		
	Duane Ober, Emergency Management and Fire Commissioner, Lititz Borough and Warwick Township		
	Jessica Stokes, Planner, Tetra Tech		

Discussion Points

This section summarizes each discussion point addressed during the Emergency Management Coordinator's Meeting.

Welcome and Introductions

Mr. Fassnacht welcomed the group and introduced the hired contractor representative, Jessica Stokes.

Planning Process

Ms. Stokes provided an overview of the HMP planning process, then described the steps in detail. The text below summarizes each step:

- Update the Risk Assessment – analyze what is at risk to the identified hazards, including people, buildings and structures, and critical facilties and community lifelines.
- Update the Capabilities Assessment – identify the existing capabilities of the County and municipalities including technical and administrative staff, plans and policies, programs, and financial.

- Update the Mitigation Strategy – review the previous HMP actions, identify problem areas, create mitigation actions for the 2024 HMP
- Update Other Sections of the HMP – other sections include the County Profile, various appendices, methodology for the risk assessment, plan maintenance, among others.
- Submit the HMP for Review – the plan goes through three reviews, the public review (30 days), State review (30 days), and FEMA review, (30-60 days).
- Adopt the HMP – upon 'adoption pending approval' given by FEMA, the County and each participating municipality mut adopt the plan via resolution. These adoptions are then submitted to the State and FEMA.
- Implement the HMP – begin initiating the mitigation strategy over the HMP's 5-year life span.

History and Problem Areas

Ms. Stokes presented the Hazards of Concern for the HMP update and facilititated discussions on problems areas within the County and each municipality. The hazards of concern that will be analyzed in the HMP are as follows:

- Dam Failure
- Drought
- Earthquake
- Environmental Hazards – Gas and Liquid Pipelines
- Environmental Hazards – Hazardous Materials Releases
- Flood, Flash Flood, and Ice Jam
- Hailstorm
- Invasive Species
- Nuclear Incident
- Pandemic and Infectious Disease
- Radon Exposure
- Subsidence, Sinkholes
- Tornado, Windstorm
- Transportation Accidents
- Utility Interruption
- Wildfire
- Winter Storm

Attendees provided the following input and insight regarding the hazards of concern:

Dam Failure

- In Elizabeth Township, if Forge Lake Dam fails, it would overtake Hammer Creek, which connects to the Calico Creek. While this is still a concern, the dam was rebuilt between 2017 and 2018.

Drought

- In drought years, the islands in the middle of the Susquehanna River tend to catch fire. The fires are primarily human-caused due to fuel being more readily available. Even moderately campfires can create an issue. Typically, July and/or August are the months with the most risk for substantial drought. The fires on the islands are particularly difficult to extinguish due to the structures on them and the wildlife habitats.
- Drought can worsen or create wildfire conditions.
- The County is highly agricultural, which drought can have both physical and economic impacts on.
- Nuclear powerplants require water to be pulled into the facility to cool the reactors. Depending on the magnitude of the drought, the reduction of water intake could cause overheating in the reactor.

- Water is necessary for utilities, including treatment plants. If there is a draw down, this can cause impacts. For example, Chester Water has its own reservoir – if the reservoir gets lowered then the facility may need to draw from Conestoga and Susquehanna Rivers.
- Drafting sites can get impacted by lack of water, impacting fire response.

Earthquake

- Aging infrastructure in the County is a concern, in particular roadways and bridges.
- The water systems haven't been updated in 50+ years and are not checked regularly due to being underground.
- Not directly related to earthquakes, but there have been landslides on Route 441.

Environmental Hazards – Gas and Pipelines

- Aging underground infrastructure.
- The rate of development in the County has led to some human error on the installation of connections.
- Gas meters are exposed in the front of the buildings, whereas they used to be out of the way. This is a big problem in Lancaster City as anyone may be able to access or damage these meters.
- Modernized older homes are not being updated properly. The old infrastructure has been repeatedly left attached to the house. For example, a fuel oil delivery truck has dumped oil into a basement which still had the oil valve on its exterior, despit not being an oilfed structure.
- Propane gas explosions have occurred in houses, with 6 having just happened in the last year, including a municipal building.

Environmental Hazards – Hazardous Materials

- Electric vehicles, bikes, and scooters catching on fire is of concern as the toxic fumes can impact first responders. The fires are difficult to extinguish.
- Municipalities expressed concerns with the transportation of hazardous materials. Major road arteries and rail lines are present in nearly every municipality in the County.

Flood, Flash Flood, and Ice Jam

- In Marietta Borough, floodwater comes from back-up through storm drains. The Borough installed in backflow valves in all storm drains, but are unsure what impact that will make. There are creeks which run on either side of the Borough (Chickies Creek, Donegal Creek, and an unnamed creek on the west side of the Borough), with embankments at either end of the Borough. Ice jams will occur on the east end of town where the Chickies and Donegal Creeks meet with the Susquehanna River. Flash floods have occurred in the center of the Borough.
- Increased development throughout the County has created more impermeable services, leading toward street flooding.
- In the Bridgeport area near Conestoga Township, North Conestoga Blvd. becomes impassable before the flood gage upriver (located near the Lancaster Waterworks Facility on Pleasure Road) indicates the Conestoga River has reached flood stage. North Conestoga Blvd. is a route heavily utilized by emergency vehicles and the public alike. South Conestoga Blvd., a residential area, also experiences flooding conditions; however, these conditions are not as critical as those on North Conestoga Blvd.
- In East Lampeter Township, Pitney Road becomes impacted by flooding if North Conestoga Blvd. in Conestoga gets flooded. Greenfield Road has been mitigated for flooding; however, there are still issues with standing water and during heavy rainfalls, flash flooding.
- Penn Township @ PA-72 at Fruitville Pike (not Rapho Township) has been mitigated.

MEETING NOTES

Hailstorm

- Hailstorms result in utility interruption and crop damages Countywide.

Invasive Species

- Storm damages, particularly downed trees, has increased.
- In wooded areas, the impacts are 'spotted' as each insect has a prefence of plant species.

Nuclear Incident

- The risk has been decreased since TMI has been deactivated – only Peach Bottom remains.

Pandemic and Infectious Disease

- Overall concerns regarding supply chain issues for PPE and everyday necessities.
- There are communication issues between public and private entities. During the COVID-19 pandemic, some extended care, independent living, and assisted care facilities strayed off from the messaging which was being put out publicly.
- Avian flu impacts the agriculture groups more than pandemics.
- The County has and partners with groups which work with socially vulnerable populations including,
    - Lancaster County Office of Aging
    - Lancaster County Children and Youth @ County
    - Lancaster County Behavioral Health and Developmental Services
    - Lancaster County Homelessness Coalition
    - Lancaster County Housing and RRedevelopment Authorities
    - United Way
    - 211
    - Tenfold
    - Central Penn Food Bank
    - Church World Service
    - Mennonite Disaster Services
    - Blessings of Hope
    - Salvation Army

Radon Exposure

- The municipalities did not have concerns surrounding radon exposure.
- It was noted that radon test are required as a part of a property inspection upon purchase.

Subsidence, Sinkholes

- Sinkhole took in a truck on Conestoga/Pequea Township line on Tanier Dr (West of New Danville)
- Aging infrastructure has caused sinkholes, including broken or aged water mains.
- Public and private areas in Lititz Borough have experienced sinkholes, including a sinkhole in the turf field at the Warwick School District.
- These hazards have been associated with development, as excavating creates problems.
- Underground springs have caused sinkholes Countywide.
- Fracking activity could impact both hazards.
- Quarryville has a low grade but experienced some small rockfall events.
- There have been nuisance mudslides on roadbanks across the County.

Tornado, Windstorm

- Impacted localized areas in the southern end of the county

- Transmission infrarsturture

Transportation Accidents

- Concerns with electric vehicles and weight restrictions on bridges, especially moving toward electric commercial vehicles.
- Electric vehicle fires in parking garages can easily spread and cause damages to other vehicles and the structure itself, brining additional concerns regarding safety to first responders.
- Concerns regarding aging infrastructure across the County. Specifically Norman Wood Bridge (Route 372) and the Columbia Street Bridge (Route 462), which both span over the Susquehanna River.
- There has been an increase in bridge strikes by commercial vehicles being too tall.

Utility Interruption

- Concern was expressed regarding potential cyber attcks to utilities and the grid.
- Municipalities indicated a need for back-up and/or emergency generators at critical facilties and community lifelines, such as municipal buildings, gas stations, schools, and utility facilities.

Wildfire

- The 2019 map does not accurately show the amount of wildfire interface in the County.
- Although the window for extreme fire behavior is relatively small, the risk is getting larger and more frequent. IT has been noted that there are 3-10 days scattered around the seasons where there is enormous potential for things to go bad.

Winter Storm

- There is a need for outreach to educate public to remain off the roads as plow trucks remove snow from roadways. As winter storms decrease in occurrence (which has been seen in recet years) the public should be reminded.
- Layers of ice on trees and utilities and snow drifts were identified as concerns countywide.
- Ice storms have caused trees and poles to collapse.
- Although the County is experiencing smaller winter storms, there has been an increase in cost to respond to the events – in particular, it was noted the cost to salt roads instead of plowing them is much higher.

Updating the Risk Assessment

Ms. Stokes discussed how the risk assessment will be performed for the HMP Update. Including:

- Identifying hazard event since January 2018
- Including robust hazard edscriptions, including the identification of where in the County the hazrds are most likely to occur and to what extent
- Improvements in the vulnerability assessment, including utilizing the most current building and population datasets
- Discussions on how climate change will influence future risks associated with each identified hazard
- Incorporating impacts each hazard may have on socially vulnerable populations

MEETING NOTES

Schedule

Ms. Stokes reviewed the project schedule. The draft of the updated HMP will be complete by September 2024 if information is provided to Tetra Tech in a timely manner. That will allow time for the public, PEMA, and FEMA reviews to occur and APA status to be achieved by January 2025.

Ms. Stokes then described the plan review and approval process. She noted that the Pennsylvania Emergency Management Agency (PEMA) usually requests only minor changes, but FEMA almost always asks for substantial changes based on best practices from other jurisdictions in FEMA Region III. Tetra Tech will update the HMP as necessary until it is granted Approvable Pending Adoption (APA) status by FEMA.

Ms. Stokes then described recent changes to FEMA guidance and the template adoption resolutions. The new template from FEMA includes language that the jurisdictions can adopt the plan while it is undergoing FEMA's review and that required revisions will not result in the plan needing to be re-adopted. The goal for the plan to be adopted is January 2025.

Following the approval of the updated plan, Lancaster County will continue to conduct regular review meetings with the HMSC. In addition, members of the HMSC should discuss the HMP and hazard mitigation at other stakeholder meetings. Most importantly, Lancaster County and municipalities should work to implement the plan.

Next Steps

The following next step was identified at the close of the meeting:

- Complete Municipal Worksheets, which are available on the County's HMP website. Work with other municipal officials to complete these worksheets.
    - Hazard Identification and Risk Evaluation
    - Capability Assessment Survey
    - Local NFIP Compliance Checklist
    - Mitigation Strategy 5-Year Mitigation Plan Review
    - Municipal Mitigation Action Review

COUNTY OF LANCASTER, PA
EMERGENCY MANAGEMENT AGENCY
TRAINING / EXERCISE / MEETING ROSTER
DATE: 4/9/24
COURSE or TOPIC: HMP Process
PAGE 1 **of** 1

NAME	AGENCY	EMAIL	SIGNATURE	Office Use Only
Brett Fassnacht	LEMA	BFassnacht@lancastercountypa.gov		
Jessica Stokes	Tetra Tech	Jessica.Stokes@tetratech.com		
Richard (Dick) Steeg	DEV	dicksteeg@outlook.com		
Jason Skonberg	Eden Township EMA	edentwpdemce@comcast.net		
Steve Bailey	Marietta Borough	SMB900@Comcast.net		
Jay Baeninger	Columbia Borough	Jbaeninger@columbiapa.net		
Brooke Bowman	LEMA	brbowman@lancastercountypa.gov		
Zach Gibbons	LEMA			
Bobbie Jo Epstein	LEMA	BEpstein@lancastercounty.pa.gov		
Curtis Thompson	E-town Regional EMA	cothompson@etownregionalema.org		
Duane Ober	Warwick Twp / Lititz Boro	doberewarwicktownship.org		
Gene Duncan	LEMA	GDuncan530@AOL.com		
Ken Barton	West Lampeter Twp	emergencycoordinator@westlampeter.com		
John Kottmyer	East Hempfield Twp	johnke@easthempfield.org		
Diane Garber	East Hempfield Twp	dgarber@easthempfield.org		
Mike Hall	Penn Twp	grinderguy@comcast.net		
Ben Heiskowitz	County	bheiskowitz@lancastercountypa.gov		

TETRA TECH

complex world | CLEAR SOLUTIONS™

Lancaster County Hazard Mitigation Plan

2024 Update



Emergency Management Coordinator Meeting

April 9, 2024



Agenda

- Planning Process
- History and Problem Areas
- Updating the Risk Assessment
- Schedule
- Next Steps
- Questions

Planning Process

- Update the Risk Assessment
- Update the Capabilities Assessment
- Update the Mitigation Strategy
- Update Other Sections of the HMP
- Submit the HMP for Review
- Adopt the HMP
- Implement the HMP

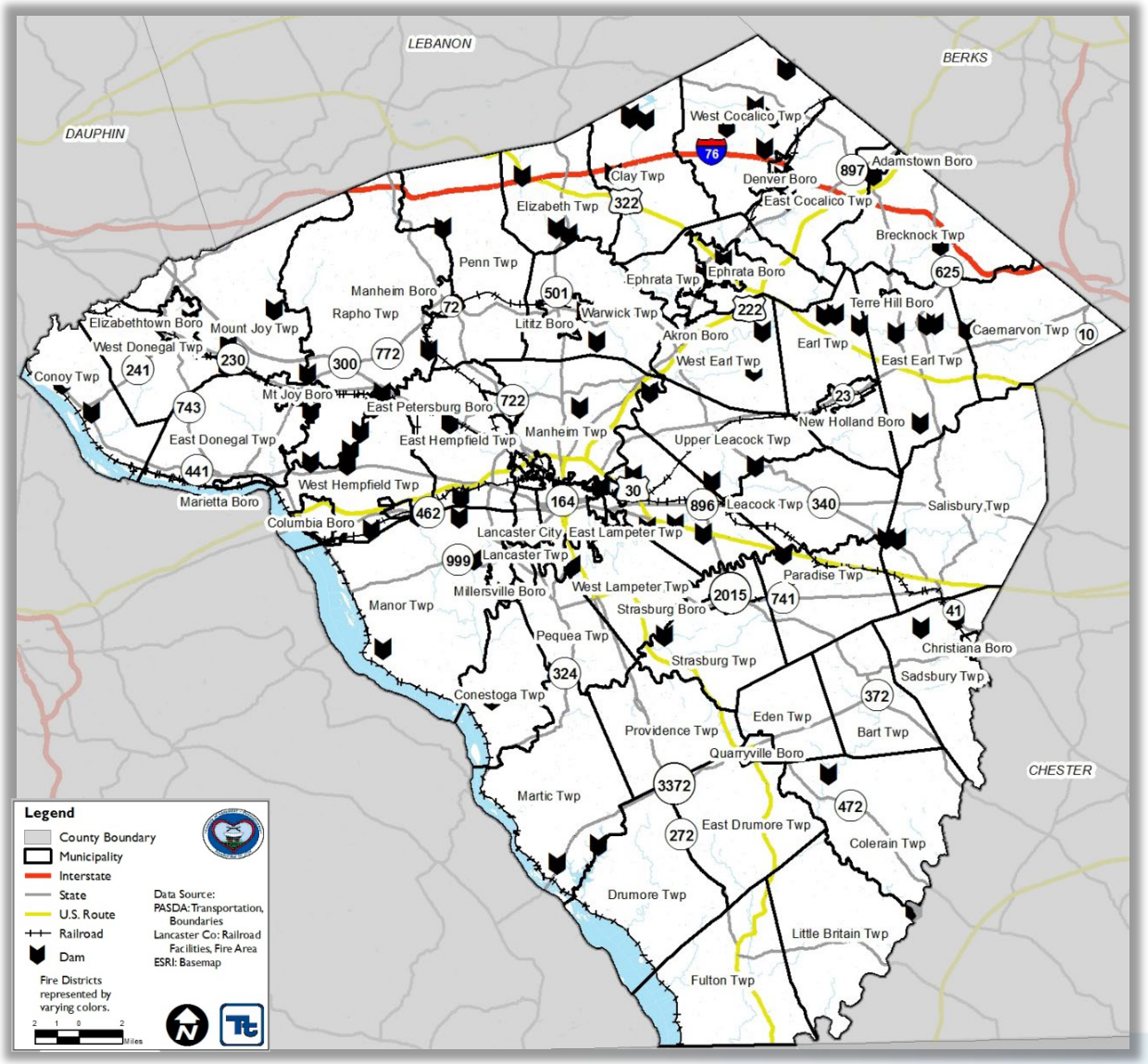
History and Problem Areas

Identified 2024 Hazards

Natural Hazards		Human-made Hazards
Drought	Radon Exposure	Dam Failure
Earthquake	Subsidence and Sinkholes	Environmental Hazards: Hazardous Materials
Flood, Flash Flood, Ice Jam	Tornadoes and Windstorms	Environmental Hazards: Gas and Pipelines
Hailstorm	Wildfire	Nuclear Incident
Invasive Species	Winter Storm	Transportation Accident
Pandemic		Utility Interruption

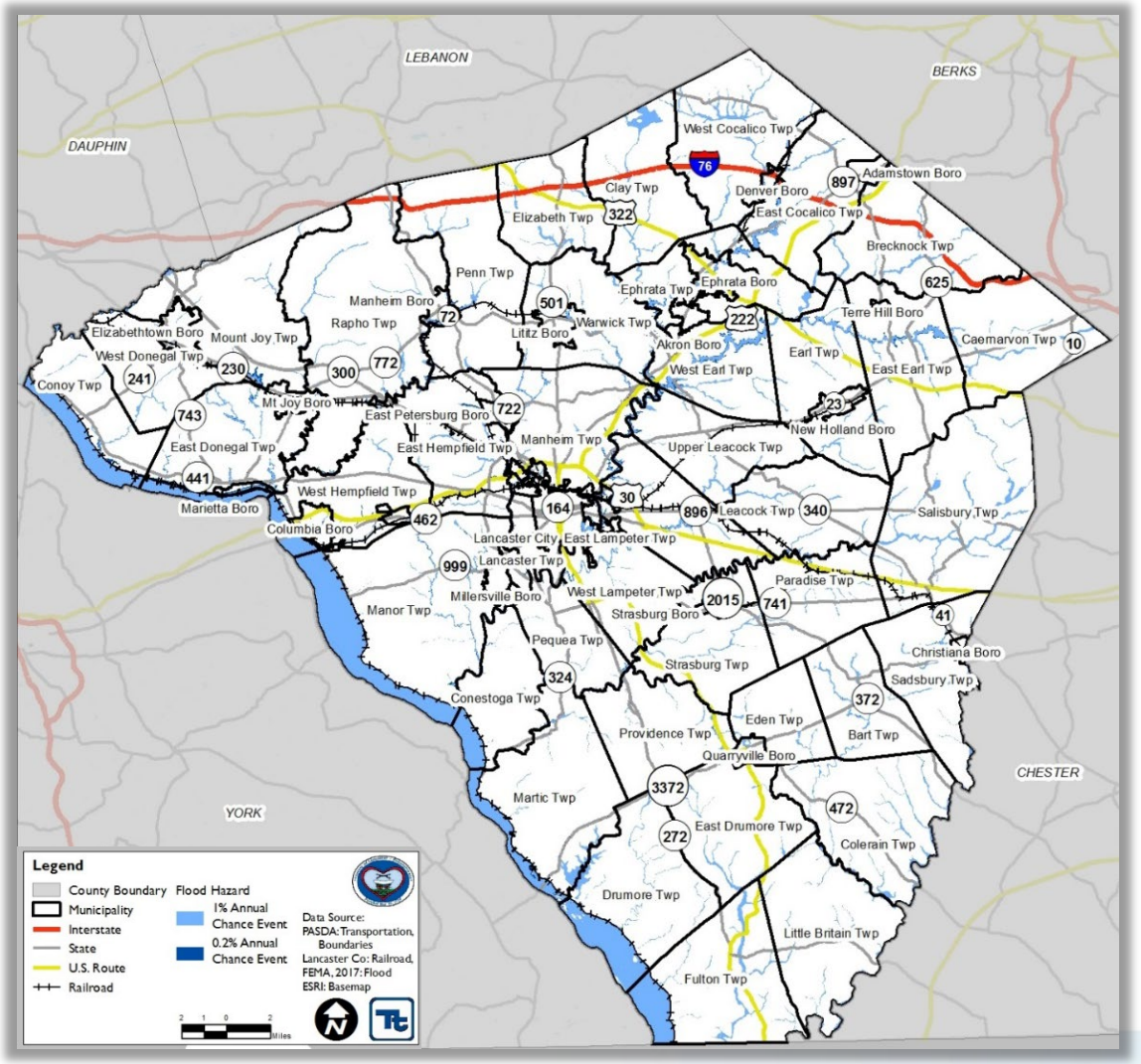
History and Problem Areas

- **Dam Failure**



History and Problem Areas

- **Riverine Flooding**



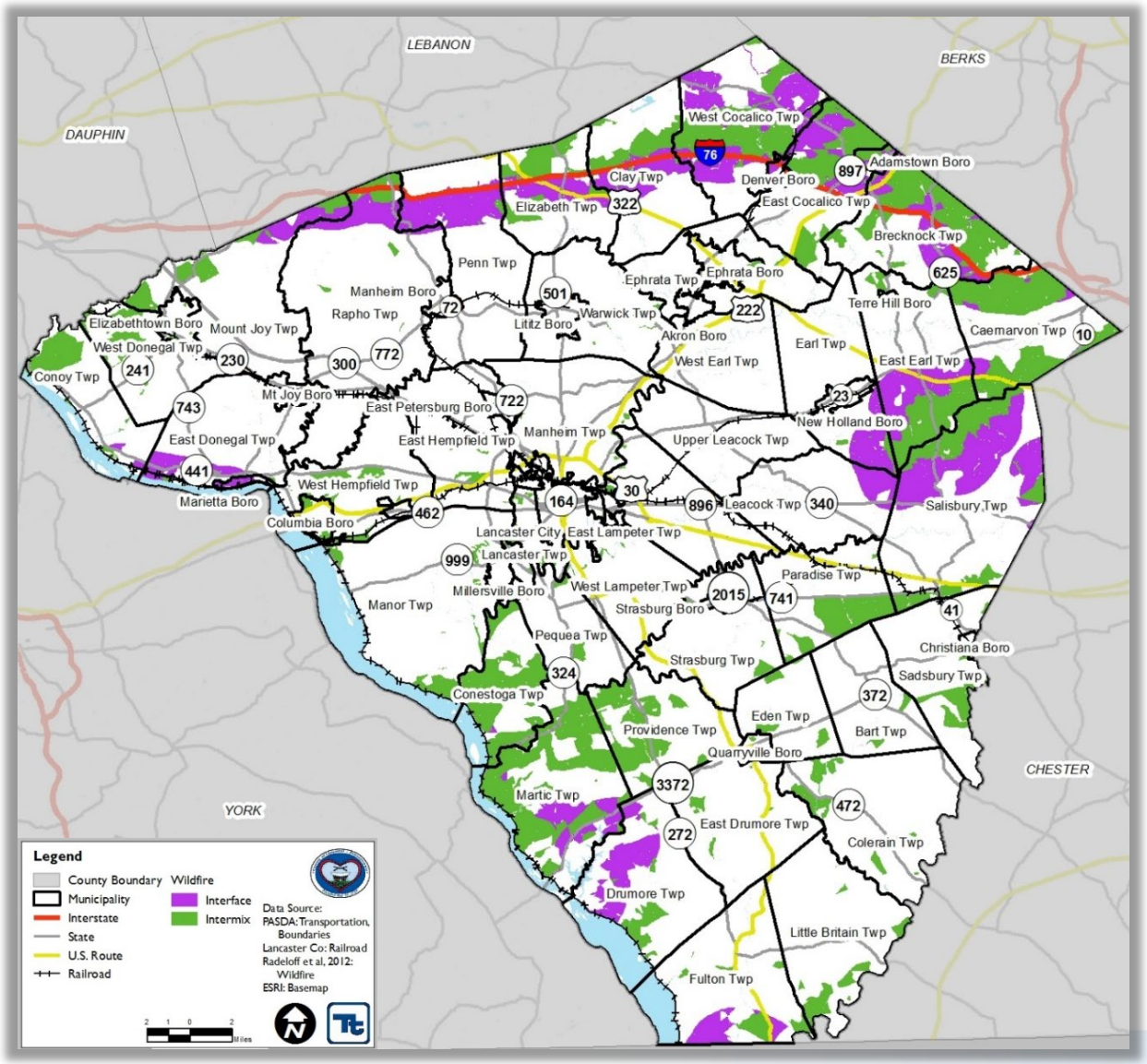
History and Problem Areas

- **Flash Flooding**
  - "Northwest part of the County"
  - Rapho Township – PA-72 at Fruitville Pike
  - Columbia Borough: 10th Street and Ridge Avenue has a drainage problem
  - Road flooding?
  - Drainage problems?



History and Problem Areas

- **Wildfire**
  - Interface
  - Intermix



History and Problem Areas

Other Hazards

Natural Hazards		Human-made Hazards
Drought	Radon Exposure	Environmental Hazards: Hazardous Materials
Earthquake	Subsidence and Sinkholes	Environmental Hazards: Gas and Pipelines
Hailstorm	Tornadoes and Windstorms	Nuclear Incident
Invasive Species	Winter Storm	Transportation Accident
Pandemic		Utility Interruption

Updating the Risk Assessment

- **Update Hazard Profiles**
  - Events since January 2018
  - Robust hazard descriptions
  - Improved vulnerability assessments
  - Discussions on climate change
  - Incorporation of impacts to socially vulnerable populations

Schedule

- Risk Assessment
  - June – July 2024
- Capabilities Assessment
  - Through June 2024
- Mitigation Strategy
  - July – August 2024
- Draft Plan for Public Review by September 2024
- Final Draft Plan by October 2024
- Submit to PEMA in October 2024
- Submit to FEMA in November 2024
- “Approvable Pending Adoption” by January 2025

Next Steps

- **Document Request**
- **Complete Municipal Worksheets**
  - Hazard Identification and Risk Evaluation
  - Capability Assessment Survey
  - Local NFIP Compliance Checklist
  - Mitigation Strategy 5-Year Mitigation Plan Review
  - Municipal Mitigation Action Review
  - https://co.lancaster.pa.us/2899/Hazard-Mitigation-Plan-Worksheets
- ***Work with other municipal officials!***



Local Participation

Jurisdiction	Hazard Evaluation Survey	Capability Assessment Survey	NFIP Survey	Mitigation Strategy Survey	Mitigation Strategy Review Jurisdiction Specific
Eden (Twp)	X	X		X	
Martic (Twp)	X	X	X		
Elizabethtown Area SD	X	X		X	
Lancaster-Lebanon Intermediate Unit	X	X	N/A		N/A
Penn Manor SD	X	X	N/A	X	N/A
Warwick SD	X	X	N/A	X	N/A

Questions?

Thank you for your time!



Contacts

Brooke Bowman

brbowman@lancastercountypa.gov

(717) 664-1340

Tony Subbio

tony.subbio@tetratech.com

(717) 839-5654

MEETING NOTES

Meeting	Lancaster County, Pennsylvania Hazard Mitigation Plan (HMP) Update Emergency Management Coordinator's Meeting		
Date	April 9, 2024	**Time**	6:30 p.m. – 8:30 p.m.
Location	Virtual via Microsoft Teams		
Attendees	Ben Herskowitz, Deputy Director – Emergency Management, Lancaster County Emergency Management Agency (LEMA)		
	Brooke Bowman, Community Resilience Coordinator & Volunteer Liaison, LEMA		
	Zachary Gibbons, Hazardous Materials Administrator, LEMA		
	Brett Fassnacht, Emergency Management Coordinator, Lancaster Township & Training & Exercise Coordinator, LEMA		
	Todd Kirkpatrick, Director, Public Safety Training Center		
	John Schmidt, Mayor, Adamstown Borough		
	Jamie Weir, Emergency Management Coordinator, Earl Township		
	Lori Shenk, Emergency Management Coordinator, Rapho Township		
	Philip Colvin, Emergency Management Coordinator, Mount Joy Borough		
	Violet DeStefano, Emergency Management Coordinator, East Petersburg Borough		
	Erik Lofgren, Emergency Management Coordinator, Sadsbury Township		
	Jay Robertson, Volunteer, LEMA		
	Chris Steppat, Student, Millersville University		
	Lavern Zimmerman, Deputy Emergency Management Coordinator, Earl Township		
	Timothy Soley, Emergency Management Coordinator, Adamstown Borough		
	Randy Gockley, Emergency Management Coordinator, Ephrata Borough		
	Chris DeLong, Deputy Chief, Lancaster City Bureau of Fire; Emergency Management Coordinator, Lancaster City		
	Sarah Ames, Deputy Emergency Management Coordinator, Denver Borough		
	Jessica Stokes, Planner, Tetra Tech		

Discussion Points

This section summarizes each discussion point addressed during the Emergency Management Coordinator's Meeting.

Welcome and Introductions

Mr. Fassnacht welcomed the group and introduced the hired contractor representative, Jessica Stokes.

Planning Process

Ms. Stokes provided an overview of the HMP planning process, then described the steps in detail. The text below summarizes each step:

- Update the Risk Assessment – analyze what is at risk to the identified hazards, including people, buildings and structures, and critical facilties and community lifelines.

- Update the Capabilities Assessment – identify the existing capabilities of the County and municipalities including technical and administrative staff, plans and policies, programs, and financial.
- Update the Mitigation Strategy – review the previous HMP actions, identify problem areas, create mitigation actions for the 2024 HMP
- Update Other Sections of the HMP – other sections include the County Profile, various appendices, methodology for the risk assessment, plan maintenance, among others.
- Submit the HMP for Review – the plan goes through three reviews, the public review (30 days), State review (30 days), and FEMA review, (30-60 days).
- Adopt the HMP – upon 'adoption pending approval' given by FEMA, the County and each participating municipality mut adopt the plan via resolution. These adoptions are then submitted to the State and FEMA.
- Implement the HMP – begin initiating the mitigation strategy over the HMP's 5-year life span.

History and Problem Areas

Ms. Stokes presented the Hazards of Concern for the HMP update and facilititated discussions on problems areas within the County and each municipality. The hazards of concern that will be analyzed in the HMP are as follows:

- Dam Failure
- Drought
- Earthquake
- Environmental Hazards – Gas and Liquid Pipelines
- Environmental Hazards – Hazardous Materials Releases
- Flood, Flash Flood, and Ice Jam
- Hailstorm
- Invasive Species
- Nuclear Incident
- Pandemic and Infectious Disease
- Radon Exposure
- Subsidence, Sinkholes
- Tornado, Windstorm
- Transportation Accidents
- Utility Interruption
- Wildfire
- Winter Storm

Attendees provided the following input and insight regarding the hazards of concern:

Dam Failure

- Low head dams on the 2019 map may no longer exist. Many have been removed, decreasing risk throughout portions of the County.

Drought

- Many municipalities source potable water from the ground rather than surface water. Drought conditions can make this problematic.
- The County has a huge agricultural community. Drought will impact crop production and even livestock if potable water sources are restricted.

Earthquake

- No concerns identified.

MEETING NOTES

Environmental Hazards – Gas and Pipelines

- Will impact municipalities, due to aging infrastructure.

Environmental Hazards – Hazardous Materials

- Municipalities expressed concerns with the transportation of hazardous materials. Major road arteries and rail lines are present in nearly every municipality in the County.

Flood, Flash Flood, and Ice Jam

- Localized flooding occurs throughout the County.
- In 2018, Mantua Township in particular had a lot of street and flooding; the creeks weren't impacted. The flooding overwhelmed stormwater infrastructure.
- The Northwestern part of the County is prone to flash flooding.
- All of Rapho Township is a creek and experiences flooding. Portions of the Township are historic and are susceptible to damages from flooding conditions.
- Cocalico Creek has caused flooding issues.
- Heavy rains in the North Eastern part of the County cause flooding cconcerns. In particular, the Conestoga River has a known flooding trigger point at Cabin Road. Once the river reaches this area, it is understood that flood waters will shortly impact Route 322 in Hinkletown.
- Any location along the Cocalico Creek can cause problems in Ephrata Borough.

Hailstorm

- Destruction of solar panels can impact energy distribution.

Invasive Species

- The gypsy moth is an invasive concern in the County as well.
- Invasive species cause impacts in agriculture to specific plants, depending on preferences.
- Snakehead fish and crawfish in the Susquehanna are invasive, and ave been known to negatively impact areas around Little Britain Township.

Nuclear Incident

- The risk has been decreased since TMI has been deactivated – only Peach Bottom remains.
- There has not been any public awareness regarding an incident at Peach Bottom for a while. There may be a need to revisit some TV air time as far as impact of an incident on Lancaster County residents.

Pandemic and Infectious Disease

- Slight increase seen in other diseases due to backlash from anti-vaccinations.
- There has been an uptick in tuberculosis coming in from unvaccinated foreign visitors.

Radon Exposure

- No concerns identified.

Subsidence, Sinkholes

- No concerns identified.

Tornado, Windstorm

- Old facilities are vulnerable due to being constructed to a different standard than today's codes.
- Where housing is located in the County may influence building codes. The construction of warehouses in the County raises concerns due to materials used.

MEETING NOTES

Transportation Accidents

- Few municipalities rely on well water, however those that do are located close to the turnpike and Route 222. These municipalities have a lot of issues with runoff from the highways and are not frequently notified of accidents. The accidents on the major arteries cause leaching into groundwater and into well systems.
- The PA turnpike is a unique environment. During night-time, trucking is transporting a lot of materials. The turnpike intersects with many municipalities. The jurisdiction for local response varies, as it is contracted. Although it has been years since a major spill, the concern is still there.
- School bus incidents are concerning. The group being transported is considered a vulnerable population (i.e. children). Up to 55 students could be transported at one time.
- Adamstown is in close proximity to Route 222 and experiences a lot of commercial vehicle accidents on that highway.

Utility Interruption

- Ephrata Borough experienced its first total outage in January 2024 for just over an hour. The outage caused every traffic light to be impacted, but didn't go beyond that. Historically the Borough has experienced very few few outages. January's event was a glitch, but the exact cause remains unknown.
- Medical facilities, LTCs, and other locations which house vulnerable populations are areas of concern for the municipalities. If utilities are interrupted at these locations, evacuations may be required.

Wildfire

- There are interface problems throughout the County.
- Many homes are covered by woodland and other expansive areas.
- Agricultural field fires have occurred and taken off, particularly after crops are harvested and fire fuel remains.

Winter Storm

- No concerns identified.

Other Related Discussions

- Hazards of Concern
    - Mr. Gockley voiced concern of the lack of including active shooter and structure fires as hazards of concern.
- Vulnerable Populations
    - Mr. Gockley indicated Ephrata Borough and Lancaster City have large homesless populations. Indicating that there are at least 22 individuals in Ephrata Borough which are homeless. Mr. Gockley also stated that the school districts keep a count of homeless students within their district.
    - Ms. DeStefano stated there's a lot of school districts with large homeless populations and that Donegal School District has a good chunk of families experiencing homelessness.
    - Mr. Fassnacht indicated East Lampeter Township and Lancaster Township have large homeless populations.
    - Mr. Schmidt noted there is a large retirement community population within Lancaster County.

MEETING NOTES

Updating the Risk Assessment

Ms. Stokes discussed how the risk assessment will be performed for the HMP Update. Including:

- Identifying hazard event since January 2018
- Including robust hazard edscriptions, including the identification of where in the County the hazrds are most likely to occur and to what extent
- Improvements in the vulnerability assessment, including utilizing the most current building and population datasets
- Discussions on how climate change will influence future risks associated with each identified hazard
- Incorporating impacts each hazard may have on socially vulnerable populations

Schedule

Ms. Stokes reviewed the project schedule. The draft of the updated HMP will be complete by September 2024 if information is provided to Tetra Tech in a timely manner. That will allow time for the public, PEMA, and FEMA reviews to occur and APA status to be achieved by January 2025.

Ms. Stokes then described the plan review and approval process. She noted that the Pennsylvania Emergency Management Agency (PEMA) usually requests only minor changes, but FEMA almost always asks for substantial changes based on best practices from other jurisdictions in FEMA Region III. Tetra Tech will update the HMP as necessary until it is granted Approvable Pending Adoption (APA) status by FEMA.

Ms. Stokes then described recent changes to FEMA guidance and the template adoption resolutions. The new template from FEMA includes language that the jurisdictions can adopt the plan while it is undergoing FEMA's review and that required revisions will not result in the plan needing to be re-adopted. The goal for the plan to be adopted is January 2025.

Following the approval of the updated plan, Lancaster County will continue to conduct regular review meetings with the HMSC. In addition, members of the HMSC should discuss the HMP and hazard mitigation at other stakeholder meetings. Most importantly, Lancaster County and municipalities should work to implement the plan.

Next Steps

The following next step was identified at the close of the meeting:

- Complete Municipal Worksheets, which are available on the County's HMP website. Work with other municipal officials to complete these worksheets.
    - Hazard Identification and Risk Evaluation
    - Capability Assessment Survey
    - Local NFIP Compliance Checklist
    - Mitigation Strategy 5-Year Mitigation Plan Review
    - Municipal Mitigation Action Review

Training / Exercise
Sign-In Sheet
DATE: 4/9/2024
COURSE or TOPIC: HMP Planning Session

NAME	AGENCY	TITLE
Brett Fassnacht	LEMA	Training & Exercise Coordinator
Ben Herskowitz	LEMA	Deputy Director
Brooke Bowman	LEMA	Community Resilience Coordinator & Volunteer Liaison
Zachary Gibbons	LEMA	Hazardous Materials Administrator
Randy Gockley	Ephrata Borough	Emergency Management Coordinator
Jessica Stokes	Tetra Tech	Lead Planner
John Schmidt	Adamstown Borough	Mayor
Lori Shenk	Rapho Township	Emergency Management Coordinator
Jamie Weir	Earl Township	Emergency Management Coordinator
Phil Colvin	Mount Joy Borough	Emergency Management Coordinator
Violet De Stefano	EHSF	Emergency Management Coordinator
Erik Lofgren	Sadsbury Township	Emergency Management Coordinator
Jay Robertson	Etown Regional / LEMA	Volunteer
Chris Steppat	Millersville University	Student
Lavern Zimmerman	Earl Township	Deputy Emergency Management Coordinator
Todd Kirkpatrick	LEMA	Director, Public Safety Training Center
Sarah Ames	Denver Borough EMA	Deputy Emergency Management Coordinator
Timothy Soley	Adamstown Borough	Emergency Management Coordinator
Chris Delong	Lancaster City	Deputy Chief, Lancaster City Bureau of Fire; Emergency Management Coordinator, Lancaster City

TETRA TECH

complex world | CLEAR SOLUTIONS™

Lancaster County Hazard Mitigation Plan

2024 Update



Emergency Management Coordinator Meeting

April 9, 2024



Agenda

- Planning Process
- History and Problem Areas
- Updating the Risk Assessment
- Schedule
- Next Steps
- Questions

Planning Process

- Update the Risk Assessment
- Update the Capabilities Assessment
- Update the Mitigation Strategy
- Update Other Sections of the HMP
- Submit the HMP for Review
- Adopt the HMP
- Implement the HMP

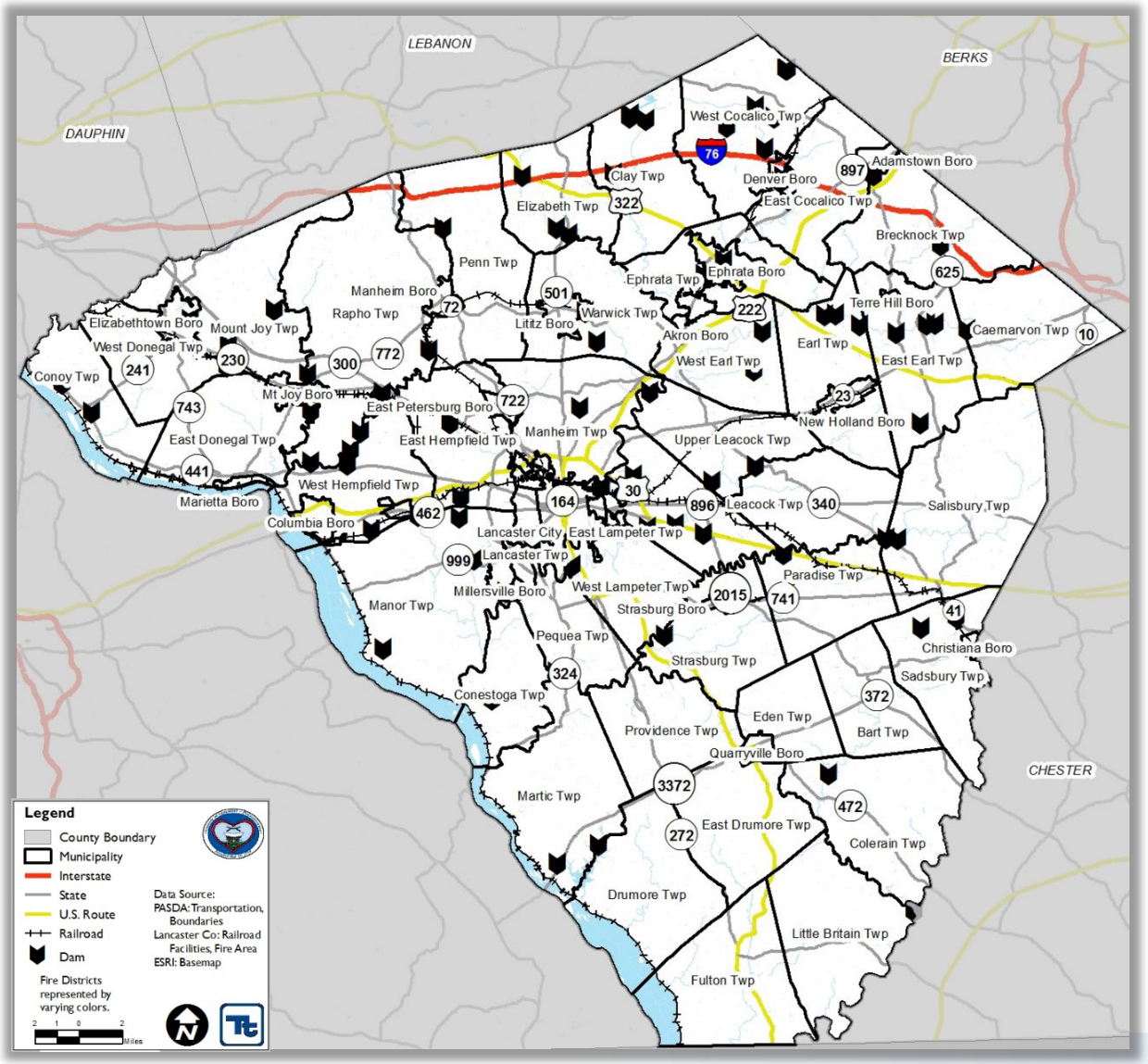
History and Problem Areas

Identified 2024 Hazards

Natural Hazards		Human-made Hazards
Drought	Radon Exposure	Dam Failure
Earthquake	Subsidence and Sinkholes	Environmental Hazards: Hazardous Materials
Flood, Flash Flood, Ice Jam	Tornadoes and Windstorms	Environmental Hazards: Gas and Pipelines
Hailstorm	Wildfire	Nuclear Incident
Invasive Species	Winter Storm	Transportation Accident
Pandemic		Utility Interruption

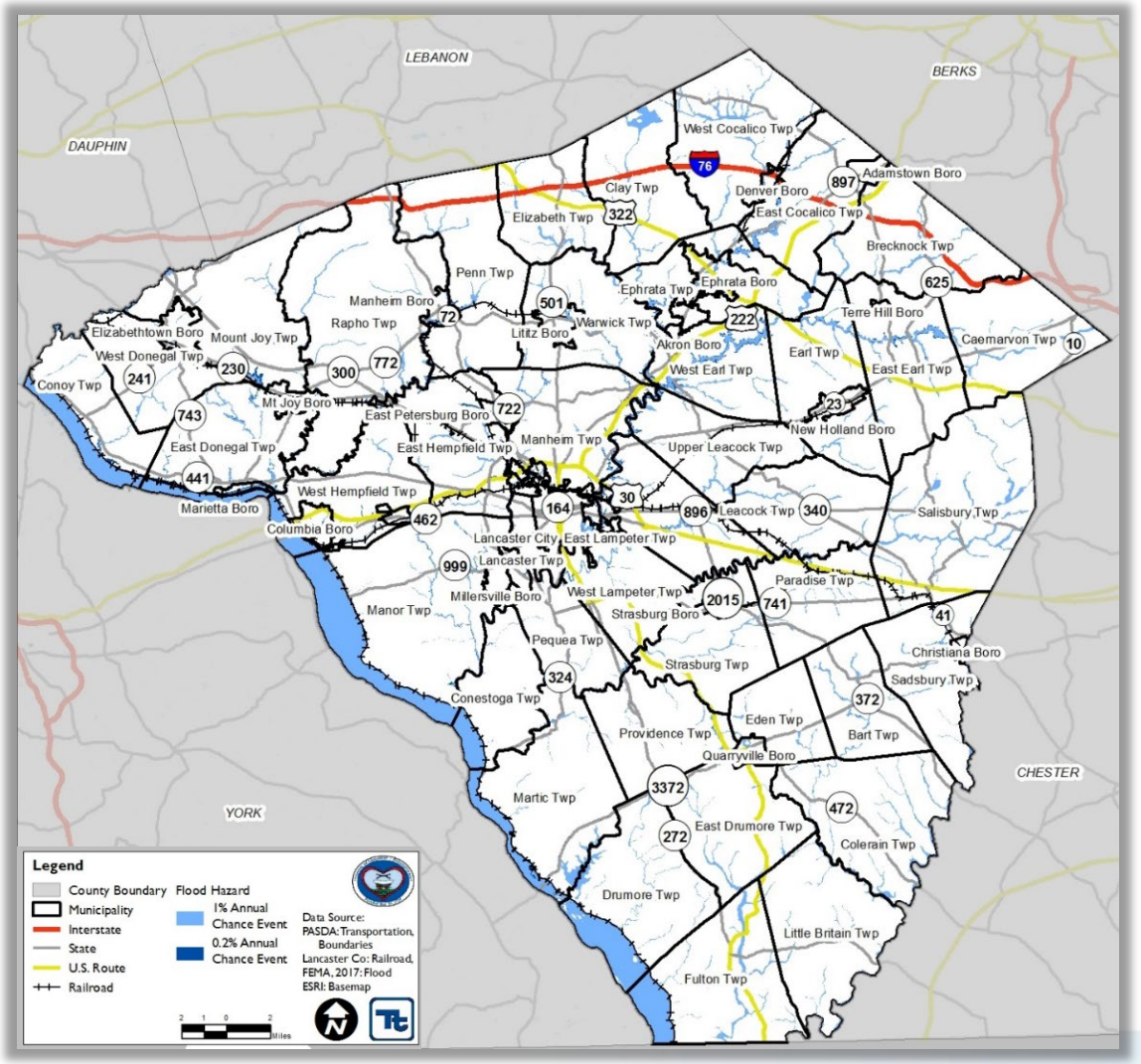
History and Problem Areas

- **Dam Failure**



History and Problem Areas

- **Riverine Flooding**



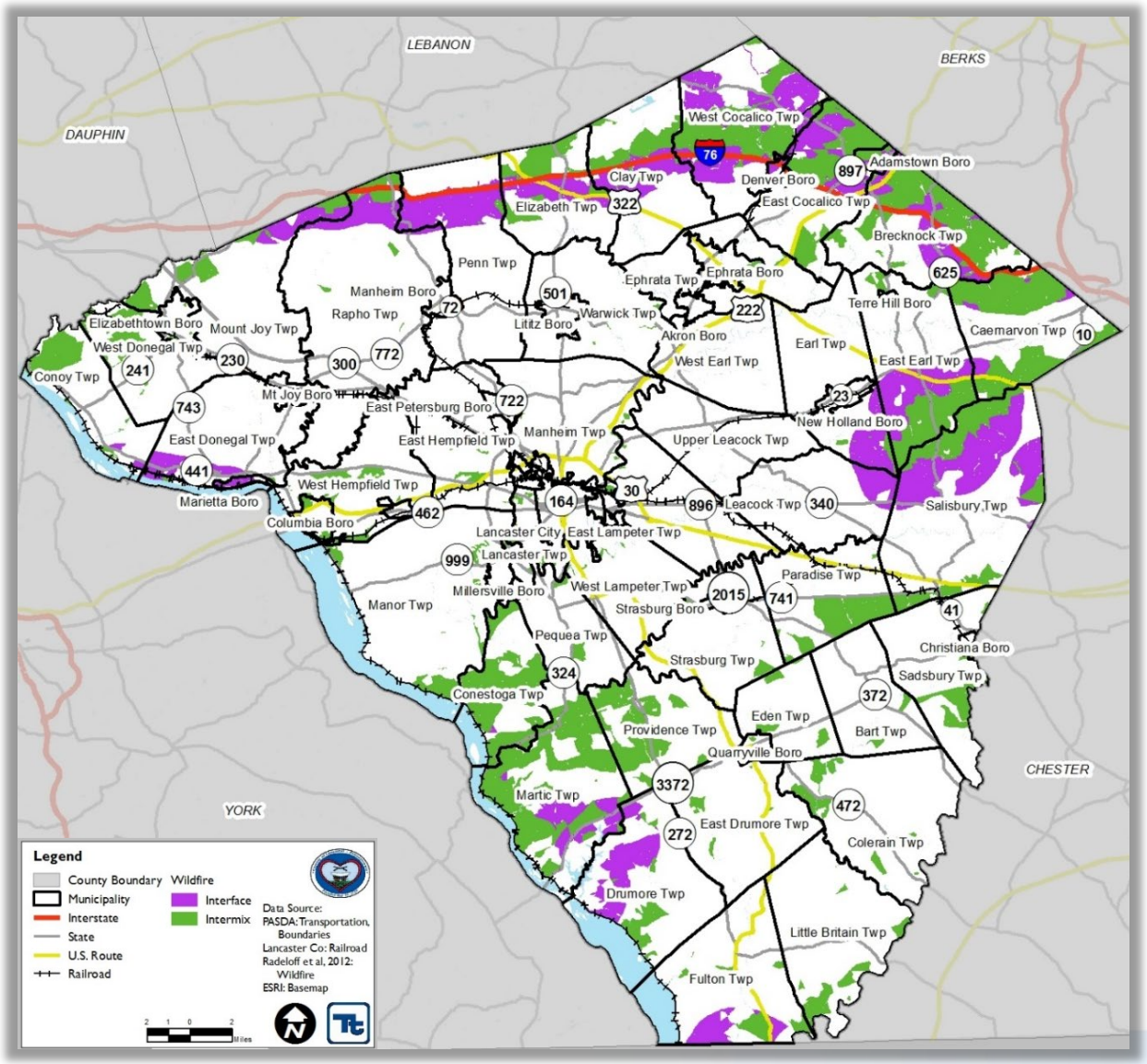
History and Problem Areas

- **Flash Flooding**
  - "Northwest part of the County"
  - Rapho Township – PA-72 at Fruitville Pike
  - Columbia Borough: 10th Street and Ridge Avenue has a drainage problem
  - Road flooding?
  - Drainage problems?



History and Problem Areas

- **Wildfire**
  - Interface
  - Intermix



History and Problem Areas

Other Hazards

Natural Hazards		Human-made Hazards
Drought	Radon Exposure	Environmental Hazards: Hazardous Materials
Earthquake	Subsidence and Sinkholes	Environmental Hazards: Gas and Pipelines
Hailstorm	Tornadoes and Windstorms	Nuclear Incident
Invasive Species	Winter Storm	Transportation Accident
Pandemic		Utility Interruption

Updating the Risk Assessment

- **Update Hazard Profiles**
  - Events since January 2018
  - Robust hazard descriptions
  - Improved vulnerability assessments
  - Discussions on climate change
  - Incorporation of impacts to socially vulnerable populations

Schedule

- Risk Assessment
  - June – July 2024
- Capabilities Assessment
  - Through June 2024
- Mitigation Strategy
  - July – August 2024
- Draft Plan for Public Review by September 2024
- Final Draft Plan by October 2024
- Submit to PEMA in October 2024
- Submit to FEMA in November 2024
- “Approvable Pending Adoption” by January 2025

Next Steps

- **Document Request**
- **Complete Municipal Worksheets**
  - Hazard Identification and Risk Evaluation
  - Capability Assessment Survey
  - Local NFIP Compliance Checklist
  - Mitigation Strategy 5-Year Mitigation Plan Review
  - Municipal Mitigation Action Review
  - https://co.lancaster.pa.us/2899/Hazard-Mitigation-Plan-Worksheets
- ***Work with other municipal officials!***



Local Participation

Jurisdiction	Hazard Evaluation Survey	Capability Assessment Survey	NFIP Survey	Mitigation Strategy Survey	Mitigation Strategy Review Jurisdiction Specific
Eden (Twp)	X	X		X	
Martic (Twp)	X	X	X		
Elizabethtown Area SD	X	X		X	
Lancaster-Lebanon Intermediate Unit	X	X	N/A		N/A
Penn Manor SD	X	X	N/A	X	N/A
Warwick SD	X	X	N/A	X	N/A

Questions?

Thank you for your time!



Contacts

Brooke Bowman

brbowman@lancastercountypa.gov

(717) 664-1340

Tony Subbio

tony.subbio@tetratech.com

(717) 839-5654

From: Herskowitz, Benjamin P
To: Subbio, Tony; Bowman, Brooke
Subject: Fw: April 24, 2024 LCBA Dinner Meeting - Attendance List
Date: Tuesday, April 30, 2024 1:20:41 PM
Attachments: LCBA Dinner Meeting Attendance Record - 04-24-2024.pdf

CAUTION: This email originated from an external sender. Verify the source before opening links or attachments.

V/r

Benjamin Herskowitz
Deputy Director
Lancaster County Emergency Management Agency
bherskowitz@co.lancaster.pa.us 717-664-1206

From: Mike Hession <mhession@denverboro.net>
Sent: Thursday, April 25, 2024 9:48 AM
To: Herskowitz, Benjamin P <BHerskowitz@lancastercountypa.gov>
Subject: [EXTERNAL] April 24, 2024 LCBA Dinner Meeting - Attendance List

Ben:

Thank you for attending the Lancaster County Borough's Association (LCBA) Dinner Meeting last night and making a presentation concerning the Lancaster County Hazard Mitigation Plan. As we discussed, attached is the attendance list from last night's meeting for your files. Thanks.

Mike

Michael Hession
Borough Manager/Secretary
Borough of Denver
501 Main Street
Denver, PA 17517
P: 717-336-2831, Ext. 5
F: 717-336-7190
MHession@denverboro.net
www.denverboro.net

Note: The message and attachment(s) to this email are intended for the use of the individual or entity to which it is addressed, and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, printing or copying of this communication is strictly prohibited. If you received this in error, please contact the sender and delete the original message, any attachment(s) and copies. Thank you for your cooperation.

LCBA Quarterly Meeting Attendance Sheet - April 24, 2024
The Holiday Inn, 26 E. Chestnut Street, Lancaster, PA 17602

Municipality	Name	Position	Guest	Total #
Columbia Borough	Heather Zink	Borough Council President		1
	Leo Lutz	Mayor		1
	Joanne Price	Borough Councilperson	Guest	2
	Mike Burke	Borough Councilperson		1
	Mark Stivers	Borough Manager		1
Denver Borough	Michael Hession	Borough Manager		1
East Petersburg Borough	Debra Miller	Borough Council President	Andy Miller - Spouse	2
	John Herr	Borough Councilperson		1
	James Malone	Mayor		1
Elizabethtown Borough	Ann Roda	Borough Manager		1
Lancaster City	Danene Sorace	Mayor		1
	Douglas Smith	Chief Planner		1
Manheim Borough	Jim Fisher	Borough Manager		1
Marietta Borough	Jeff Hudson	Borough Councilperson		1
Millersville Borough	Joseph Lane	Borough Council President		1
	David Aichele	Mayor		1
	Rebecca DeSantis-Randall	Borough Manager		1
Mount Joy Borough	Mark G. Pugliese	Borough Manager		1
Quarryville Borough	Diane Hastings	Borough Councilperson		1
	Scott Peiffer	Borough Manager		1
Guests:				
	Terry Trego	Senator Scott Martin		1
	Ray D'Agostino	County Commissioner		1
	Alice Yoder	County Commissioner		1
	Ezra Rothman	EDC		1
	Jack Fowler	EDC		1
	Justin Eby	LCHRA		1
	Sean Krumpe	LCHRA		1
	Amanda Reilly	PFM		1
	Stephen Darby	PFM		1
	Linda Slaseman	PFM		1
	Pashk Sokoli	PFM		1
	Ben Herskowitz	LEMA		1
Total				**34**

LANCASTER COUNTY HAZARD MITIGATION PLAN UPDATE
Planning Team Risk Assessment Meeting – AGENDA
MEETING DATE/TIME: Monday, September 23 – 2:00 pm – 4:00 pm

In-Person at Lancaster County Public Safety Training Facility
(101 Champ Blvd., Manheim, PA 17545)

OR

Virtual Meeting via Teams
https://msteams.link/K5ME

1. **Welcome and Introductions**
2. **Project Status** - where we are in the process, public outreach
3. **Risk Assessment Overview**
    - Results of risk assessment for each hazard
    - Hazards of concern risk ranking
    - How will this information be used in the HMP?
4. **Preliminary Risk Assessment Results**
5. **Hazard Rankings**
6. **Review Preliminary Hazard Rankings**
7. **Next Steps**
8. **Questions/Discussion**

Lancaster County Project Contact
Brooke Bowman, Community Resilience Coordinator
Seneca County Emergency Management
(717) 664-1340 | brbowman@lancastercountypa.gov

Tetra Tech Project Contact
Jessica Stokes, MSEM, NJCEM
Tetra Tech, Inc.
(973) 630-8017 | jessica.stokes@tetratech.com

Lancaster County, PA – Hazard Mitigation Plan 2025 Update
Planning Team Risk Assessment Meeting | Meeting Minutes

Purpose of Meeting:	Planning Team Risk Assessment Meeting
Location of Meeting:	Teleconference / In-Person @ Lancaster County Public Safety Training Facility (101 Champ Blvd., Manheim, PA 17545)
Date of Meeting:	September 23, 2024 @ 2:00 P.M.

Attendees:

- **Lancaster County Emergency Management Agency**
  - Ben Herskowitz, Deputy Director
  - Brooke Bowman, Community Resilience Coordinator & Volunteer Liaison
- **Lancaster County Chamber of Commerce**
  - Katharine DeSantis, Public Policy Coordinator
- **East Petersburg Borough**
  - Violet DeStefano, Emergency Management Coordinator
- **Lancaster City**
  - Chris DeLong, Deputy Chief, Lancaster City Bureau of Fire; Emergency Management Coordinator
- **Tetra Tech**
  - Jessica Stokes, Project Manager
  - Emily Vassallo, Lead Planner

Agenda Summary: The purpose of the meeting was to provide an overview of the hazard mitigation planning process, discuss public and stakeholder outreach efforts, review the risk assessment results, including the County hazard ranking, obtain feedback, introduce the hazard ranking worksheets, and review next steps.

Item No.	Description	Action item(s):
1	**Introductions**	-

2	**Project Status**
	• Municipal Participation Status
	• Public Outreach and Engagement
	  ○ Post links on social media and department/agency websites
	  ○ Stakeholder and neighboring municipalities surveys have been distributed
	  ○ Make efforts to reach out to:
	  ▪ General Public
	  ▪ Stakeholders
	  ▪ Neighbors
		Planning Team
		• Post links on social media and department/agency websites
		• Make efforts to reach out to public, stakeholders, neighbors, and socially vulnerable populations

3	**Risk Assessment Overview**
	• Risk is defined as a function of:
	  ○ Hazard
	  ▪ Source of potential danger or adverse condition
	  ○ Exposure
	  ▪ Manmade or natural features that are exposed to the hazard
	  ○ Vulnerability
	  ▪ Damage susceptibility of the exposed features
	  ○ Adaptive Capacity (or capability)
	  ▪ Plans/policies
	  ▪ Response/recovery
	  ○ Financial resources
		-

4	**Preliminary Risk Assessment Results**
	• Provided an overview of the results from the risk assessment for each hazard. Results were a combination of qualitative and quantitative data.
	  ○ Hazards:
	  ▪ Dam Failure
	  ▪ Drought
	  ▪ Earthquake
	  ▪ Environmental Hazards:
		-

	▪ Gas and Pipeline ▪ Environmental Hazards: Hazardous Materials ▪ Flood, Flash Flood, Ice Jam ▪ Hailstorm ▪ Invasive Species ▪ Nuclear Incident • TMI is intending on reopening under a new name. Adjust hazard profile to include note about this. Include in hazard profile the Salem Nuclear Power Plant (County in 50-mile EPZ) and the Susquehanna Steam Electric Station, whose 50-mile EPZ ends only 0.5 miles from the County bounty. ▪ Pandemic and Infectious Disease ▪ Radon Exposure ▪ Subsidence, Sinkhole ▪ Tornado, Windstorm ▪ Transportation Accident ▪ Utility Interruption ▪ Wildfire ▪ Winter Storm	
5	**Hazard Rankings** • The calculated probability of a hazard occurring based on historical data • *Impacts to people, property, and the economy* based on GIS data and analysis of exposure. • The degree to which *climate change* will affect future occurrences based on best available data. • The degree to which existing *capabilities* (the ability of your community to respond to the hazard based on ordinances, mitigation strategies and procedures, and readiness) decrease overall risk. • Ranking: ○ High: Subsidence, Sinkhole; Hailstorm ○ Medium: Utility Interruption; Winter Storm; Wildfire; Transportation Accident; Tornado, Windstorm; Flood, Gas and Liquid Pipelines; Nuclear Incident; Dam Failure; Hazardous Materials; Drought ▪ Discussion about potentially changing flood due to increased frequency and fatalities in recent years. ○ Low: Invasive Species; Earthquake; Pandemic; Radon Exposure	-
6	**Review Preliminary Hazard Rankings** • Complete Table 1 in the worksheet by indicating whether the preliminary hazard ranking is agreed with. If you would like to change the ranking, please identify the desired new ranking and a justification for the adjustment. • Complete Table 2 in the worksheet by indicating whether the preliminary adaptive capacity ranking is agreed with. If you would like to change the ranking, please identify the desired new ranking and a justification for the adjustment.	**Planning Team** • Complete preliminary rankings worksheet by October 7
7	**Next Steps** • Share information about the HMP Update via social media, community groups, and networks • Complete Preliminary Rankings worksheet • Stay tuned for the Steering Committee Risk Assessment and Mitigation Strategy Workshop meetings	**Planning Team** • Send final email inquiring on completed worksheets; final submission by October 4

8	**Questions/Discussion**
	• Brooke Bowman - Question of meetings coming up from Brooke due to election time coming up
	  ○ Jessica Stokes and Brooke Bowman will follow up to determine these
	• Violet DeStefano - Do they have to submit these worksheets to participate?
	  ○ Not submitting does not bar them from participating, but it certainly helps
	• Ben Herskowitz is continuing to call and attempting to get the participation
	  ○ County advised people to look at previous plan for help, most did not have anything in the plan relevant to them
	• Brooke Bowman - Question on participation requirements for the plan. Is it attending meeting AND worksheet?
	  ○ Jessica Stokes to double check these requirements
		-



TETRA TECH

County of Lancaster ~ Pennsylvania ~ Founded May 10, 1729

Lancaster County Hazard Mitigation Plan 2025 Update

Planning Team Risk Assessment Meeting

September 23, 2024



Today's Agenda

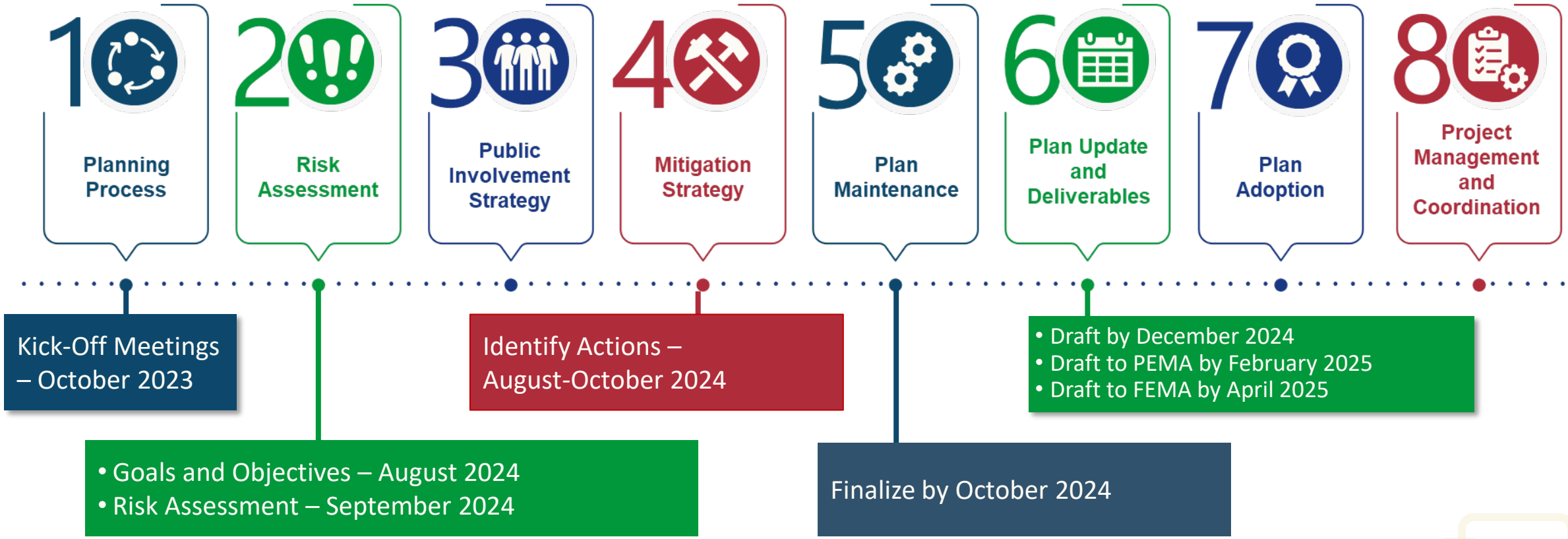
1. Welcome and Introductions
2. Project Status
3. Risk Assessment Overview
4. Preliminary Risk Assessment Results
5. Hazard Rankings
6. Review Preliminary Rankings
7. Next Steps
8. Questions/Discussion





Project Status

Schedule


1
Planning Process
2
Risk Assessment
3
Public Involvement Strategy
4
Mitigation Strategy
5
Plan Maintenance
6
Plan Update and Deliverables
7
Plan Adoption
8
Project Management and Coordination
Kick-Off Meetings – October 2023
• Goals and Objectives – August 2024
• Risk Assessment – September 2024
Identify Actions – August-October 2024
Finalize by October 2024
• Draft by December 2024
• Draft to PEMA by February 2025
• Draft to FEMA by April 2025

Municipal Participation Status

To date, we have not received all municipal worksheets. The worksheets should be submitted as soon as possible. Please submit worksheets to (HMP@lancastercountypa.gov).

Municipality	Worksheets
Adamstown (B)	HE, CA, NFIP
Brecknock (Twp)	MS
East Drumore (Twp)	MS
East Earl (Twp)	HE, CA, NFIP, MS
Fulton (Twp)	HE, CA, NFIP
Millersville (B)	CA

Municipality	Worksheets
Mountville (B)	HE, CA, NFIP, MS
Paradise (Twp)	HE, CA, NFIP, MS
Pequea (Twp)	CA, NFIP, MS
Salisbury (Twp)	HE, CA, NFIP, MS
Terre Hill (B)	HE, CA, NFIP, MS
West Lampeter (Twp)	NFIP

(HE) – Hazard Evaluation; (CA) – Capability Assessment; (NFIP) – National Floodplain Insurance Program; (MS) – Mitigation Strategy

Public Outreach

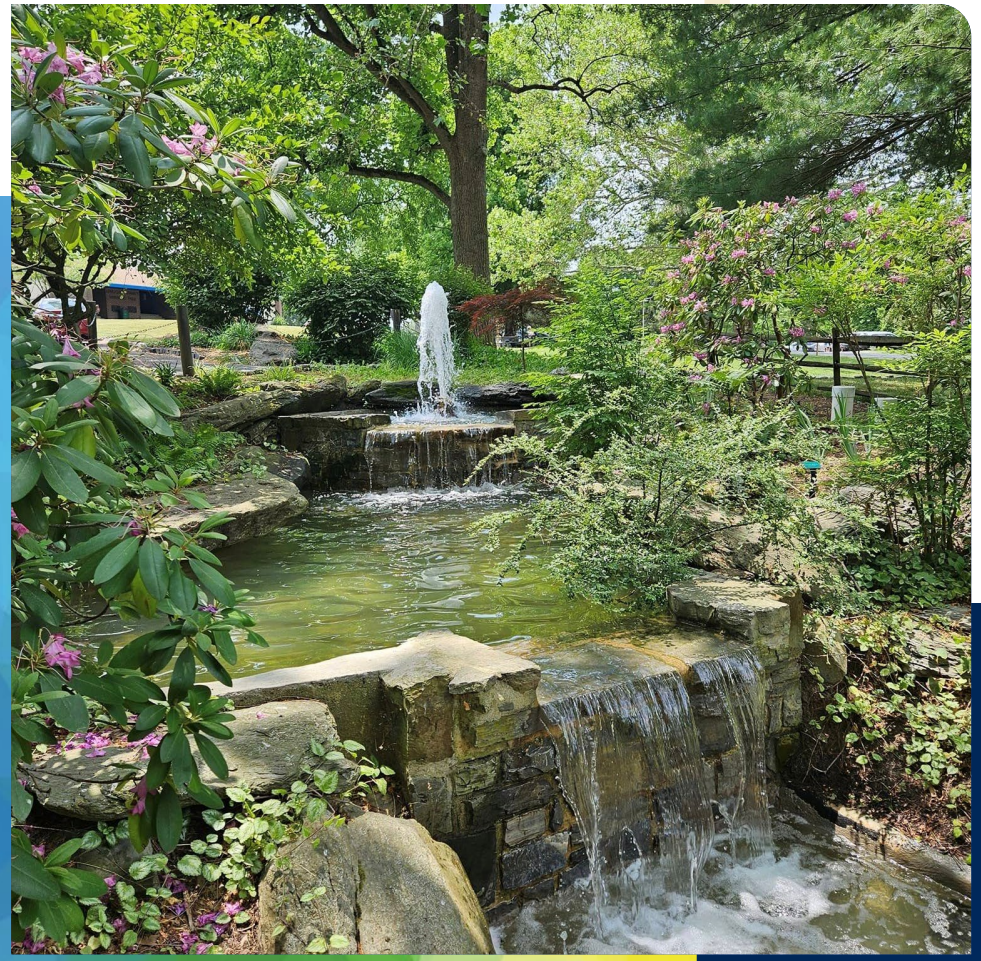
- Public Outreach Toolkit
  - Social media templates and posts
  - Press release templates
  - Printable materials
- Surveys
  - Stakeholders
  - Neighboring communities
  - Public
- County Website
- StoryMap











Risk Assessment Overview

What is Risk?

Risk is defined as a function of :

- Hazard
  - Source of potential danger or adverse condition
- Exposure
  - Manmade or natural features that are exposed to the hazard
- Vulnerability
  - Damage susceptibility of the exposed features
- Adaptive Capacity (or capability)
  - Plans/policies
  - Response/recovery
  - Financial resources

Purpose of Risk Assessment

- To get a better understanding of the risks you face
- Initial results based on available data
- Quantitative data (population/structures exposed, structural damages within hazard zones) used when available
- Qualitative community input (such as unmapped flood areas) integrated to adjust results
- Local community input to adjust relative rankings





Preliminary Risk Assessment Results

Dam Failure

Dam failures in Lancaster County are a low-probability and high-consequence event. A dam failure can have devastating impacts on the County. While most dams have storage volumes small enough that failures would have little or no consequences, dams with large storage amounts could cause significant flooding downstream.

Number of Dams

84

- 7 High Hazard

Impacts

- Dam failure can cut evacuation routes, limit emergency access, and/or create isolation issues.
- Severe flooding can cause extensive structural damage and withhold essential services.
- The environmental impacts of a dam failure can include significant water-quality and debris-disposal issues or severe erosion that can impact local ecosystems.

Dam Failure Event



Source: Times Union 2021

Climate Change Impacts

Lancaster County is expected to experience increased precipitation and more frequent, intense storms. Excessive rainfall can cause a dam to overflow since these structures are designed partly based on assumptions about river flow and precipitation patterns. More frequent and intense precipitation leads to more intense dam overtopping, potentially affecting a larger area and producing stronger water velocities that exacerbate damages to general building stock and critical facilities.

Drought

Droughts can affect Lancaster County's industries and make day to day tasks more difficult to complete when water usage must be monitored.

Population Exposed

552,984

The entire County is susceptible

Climate Change Impacts

Short-term seasonal droughts lasting weeks or months could increase, especially in the summer. This is because of precipitation falling in more intense bursts with longer dry spells in between and higher temperatures in the summer causing more water to evaporate. The potential increase of short-term droughts may impact water systems, resulting in water shortages.

Drought Damaged Field



Source: New York Times 2012

Hazard Types

Meteorological

Hydrological

Agricultural

Socioeconomic

Earthquake

Earthquakes in Lancaster County are a low-probability and high-consequence event. An earthquake can have devastating impacts on the County. Ground shaking can lead to the collapse of buildings and bridges and disrupt gas lines, electricity, and phone service.

Commercial buildings are the most impacted structure type in terms of incurred damages, followed by residential buildings.

Population Exposed

552,984

The entire County is susceptible

Hazard Types

Surface Faulting

Ground Motion

Liquefaction

Tectonic Deformation

Number of Buildings Exposed

285,764

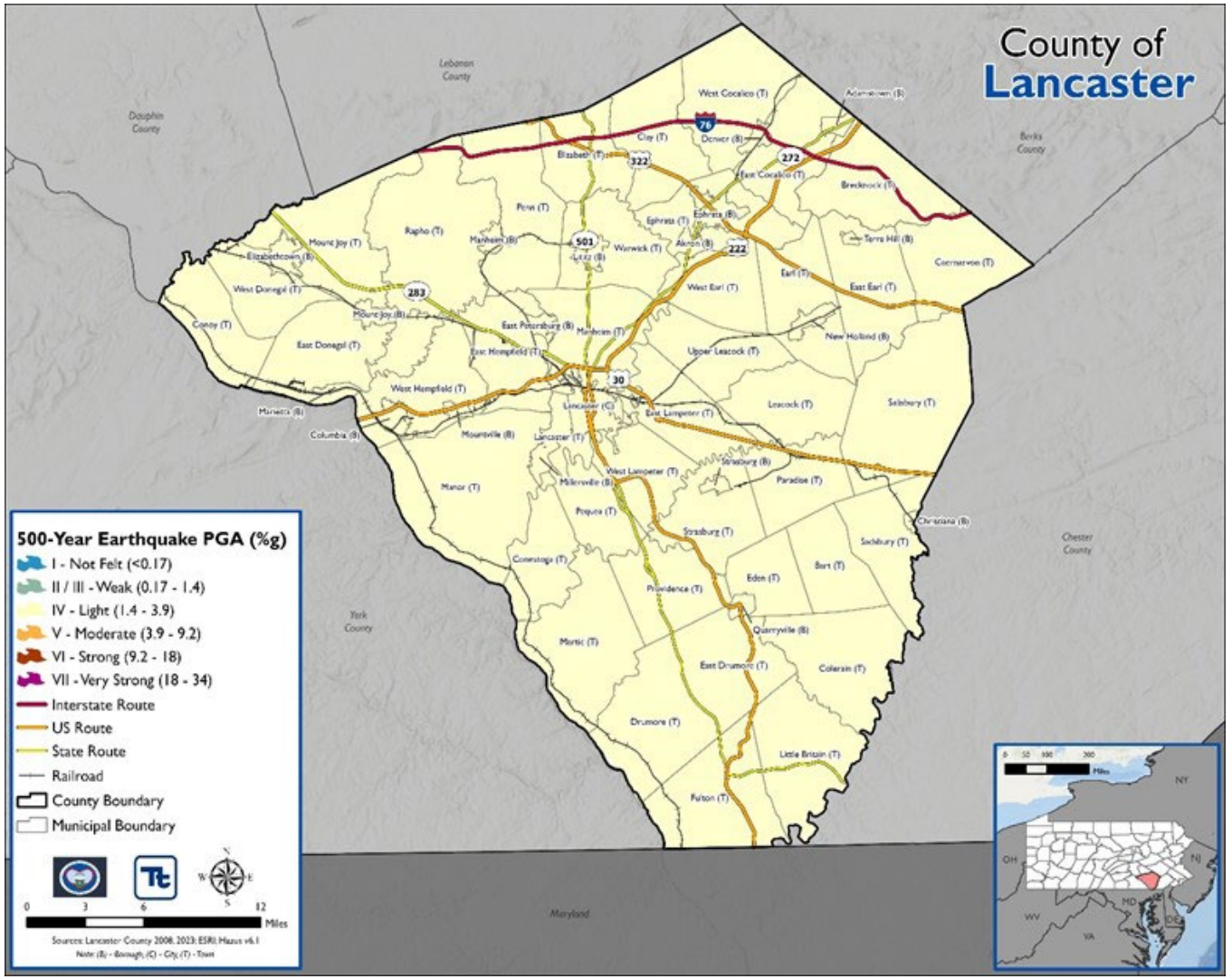
all buildings are exposed

Building Replacement Cost Value

$69,743,412

for impacted buildings

500-Year Peak Ground Acceleration in Lancaster County



Environmental Hazard

Gas and Pipelines

Gas and liquid pipelines run across Lancaster County, particularly in across the County's northern point and it's mid- and lower-regions. Incidents involving gas and liquid pipelines can immediately and adversely impact the general population, causing effects ranging from inconvenient evacuations to personal injury and even death.

Environmental Impacts

Contamination of soil, surface water, and groundwater can result in many direct impacts on surrounding populations (water, food sources) and ecosystems.

Population Exposed

38,496

Within 0.25 miles of a pipeline

Community Lifelines Exposed

538

Within 0.25 miles of a pipeline

Number of Buildings Exposed

18,340

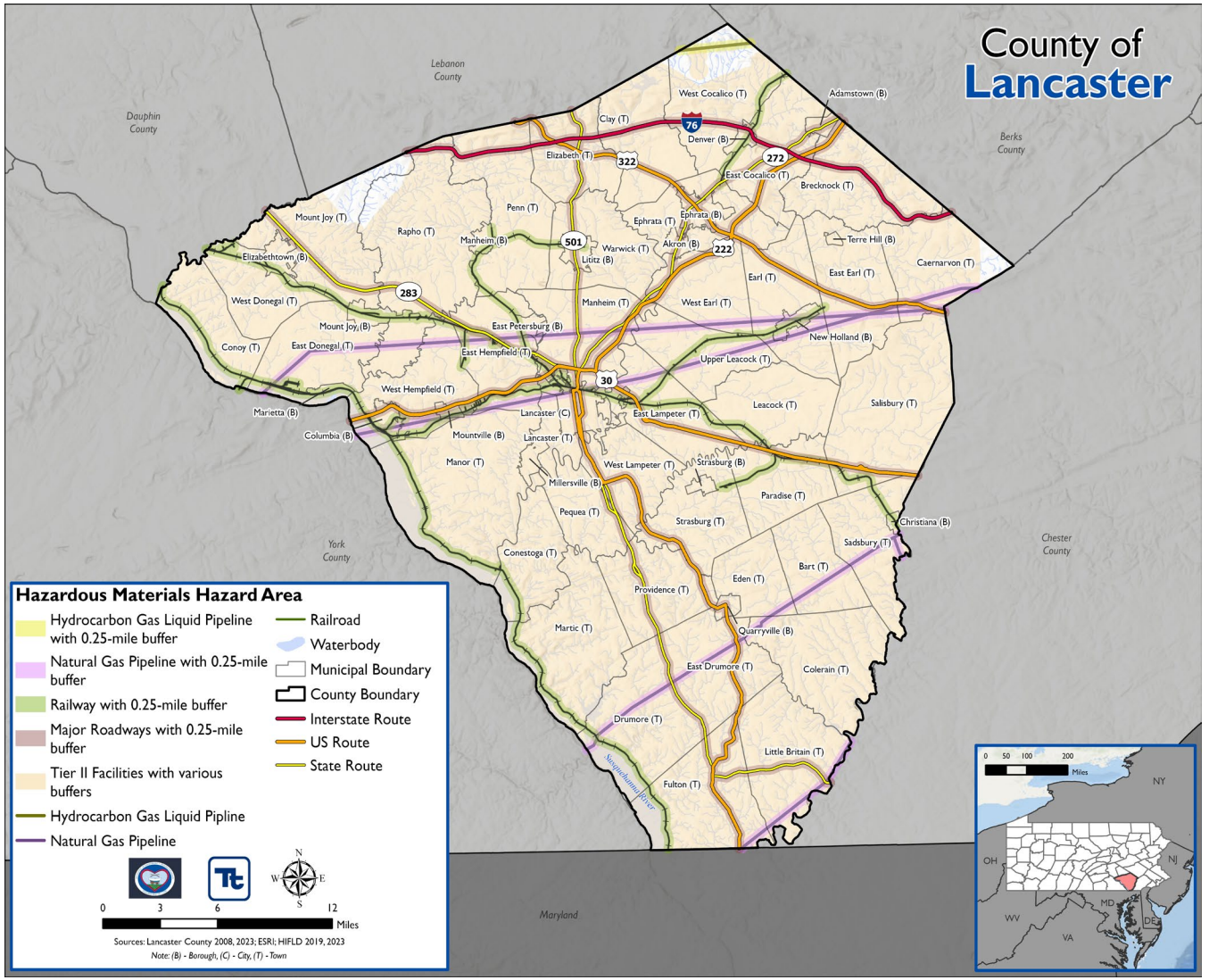
Within 0.25 miles of a pipeline

Building Replacement Cost Value

$30,572,094,336

Within 0.25 miles of a pipeline

Hazardous Materials Hazard Areas in Lancaster County



Environmental Hazard

Hazardous Materials

A hazardous materials incident may occur in transit or at a fixed facility. Release of certain products can adversely impact the general population, ranging from evacuations to personal injury and even death. Moreover, any release can compromise the local environment through contamination of soil, groundwater, or local flora and fauna.

Population Exposed

104,577

Within 0.25 miles of a major highway

57,263

Within 0.25 miles of a rail line

551,061

Unique radius for SARA Type II Facilities

Number of Buildings Exposed

52,535

Within 0.25 miles of a major highway

32,924

Within 0.25 miles of a rail line

283,655

Unique radius for SARA Type II Facilities

Community Lifelines Exposed

1,783

Within 0.25 miles of a major highway

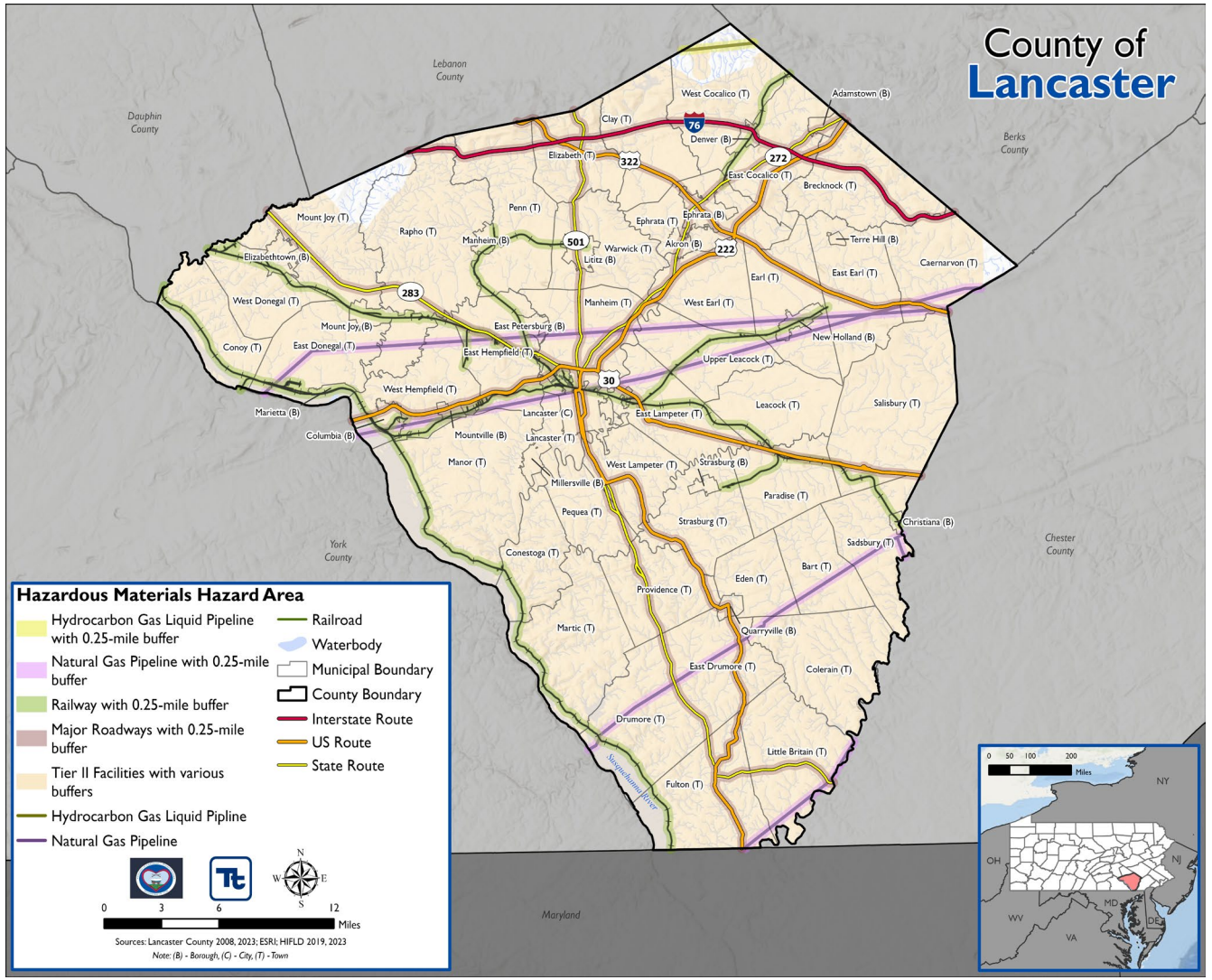
1,143

Within 0.25 miles of a rail line

6,450

Unique radius for SARA Type II Facilities

Hazardous Materials Hazard Areas in Lancaster County



Flood, Flash Flood, Ice Jam

Floods can happen almost anywhere in County but tend to occur in and around areas near existing bodies of water. Sloped land in the County results in flowing water moving down steeper gradients and being naturally or artificially channelized through valleys and gullies.

Climate Change Impacts

An increase in variability of temperature and precipitation may lead to increased frequency and/or severity of events. Summer floods are projected to increase because of increased variability in precipitation. Winter precipitation may increasingly fall as rain rather than snow due to higher temperatures.

Hazard Types

Riverine | Flash Flood | Ice Jam

Number of Buildings Exposed

3,808

In 1% Annual Chance Flood Area

6,260

In 0.2% Annual Chance Flood Area

Population Exposed

3,906

In 1% Annual Chance Flood Area

8,234

In 0.2% Annual Chance Flood Area

Flood Building Replacement Cost Value

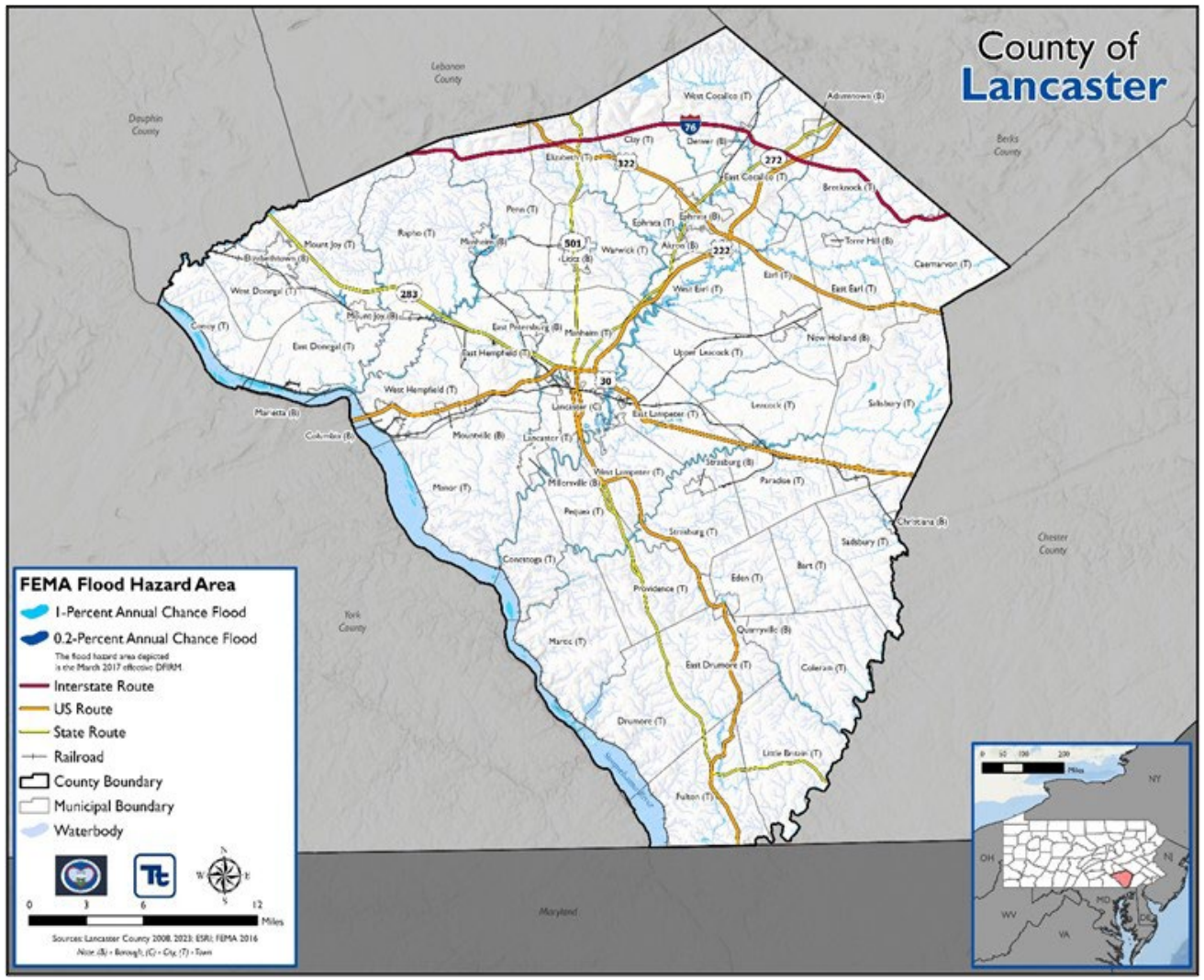
$6,121,756,102

In 1% Annual Chance Flood Area

$8,842,252,425

In 0.2% Annual Chance Flood Area

FEMA Flood Hazard Areas



Hailstorm

A hailstorm is a storm accompanied by hail, which is precipitation in the form of small balls or lumps of clear ice or compact snow. The size of hailstones is directly related to the size and severity of the storm. Damage to crops and vehicles is typically the most significant impact of hailstorms.

Agriculture Exposure

378,574	4,680
Acres of farmland	Farms

Population Exposed

552,984

The entire County is susceptible

Vulnerable Populations

People outdoors (for example, pursuing recreational activities and farming) are considered most vulnerable to the hazard because they ordinarily would receive little to no warning, and shelter may not be available.

Climate Change Impacts

An increase in variability of temperature and precipitation may lead to increased frequency and/or severity of events. An increase in severe storm events can lead to more instances of hail development.

Pile of Fallen Hailstones



Source: WGAL 2017

Invasive Species

Some invasive species are not considered agricultural pests and do not harm humans. Other invasive species can cause significant changes in the composition of County's ecosystems. Invasive species have the potential to impact over 378,574 acres of agricultural land in Lancaster County, which has the market value of $1,854,419,000.

Agriculture Exposure

378,574	4,680
Acres of farmland	Farms

Population Exposed

552,984

The entire County is susceptible

Environmental Impacts

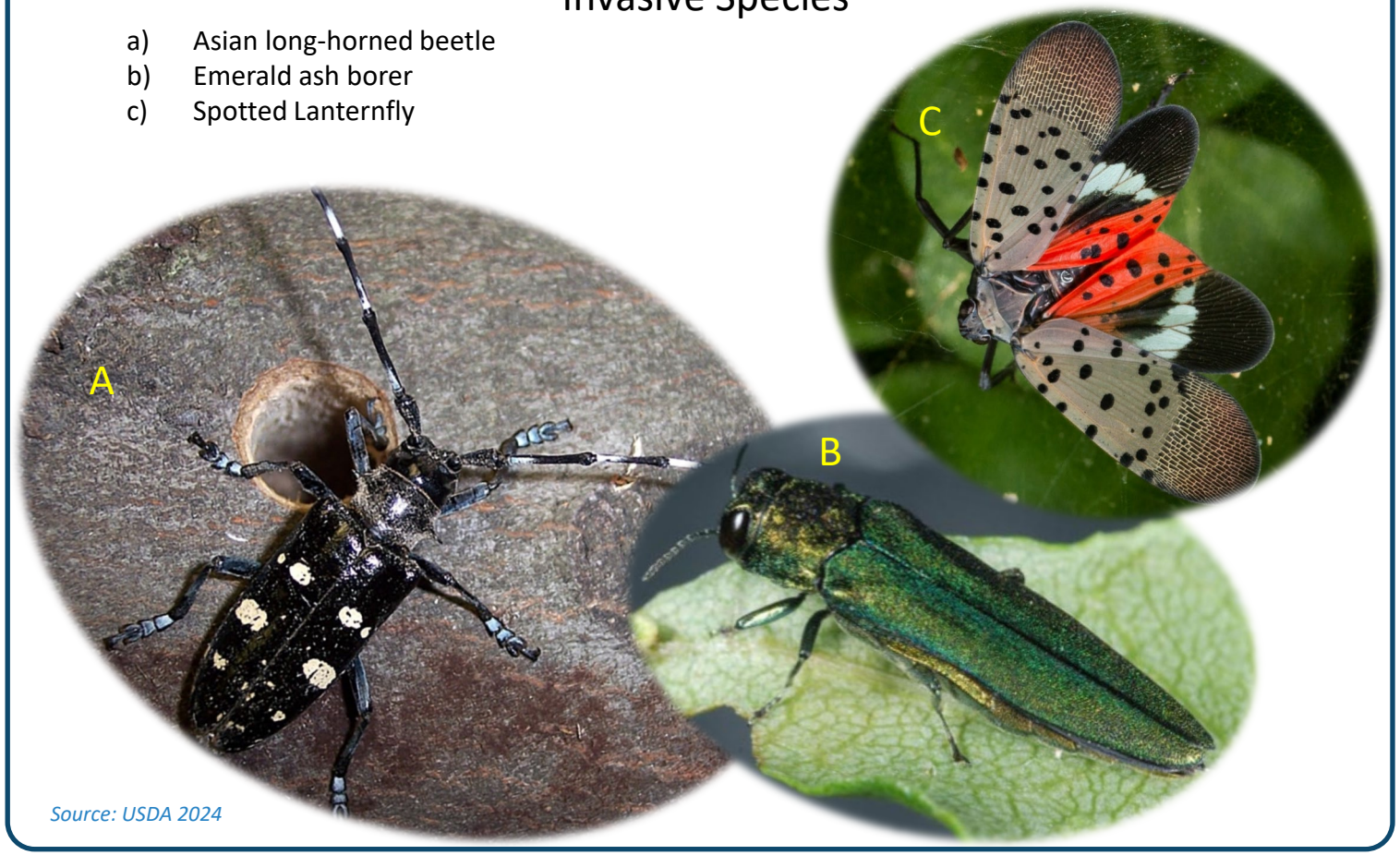
The aggressive nature of many invasive species can cause reductions in biodiversity by crowding out native species. This can affect the health of individual organisms and the overall well-being of the affected ecosystem.

Climate Change Impacts

Changing weather patterns could create a change in the migration patterns for when species move into and out of Lancaster County. If the species have a more prolonged existence in the County, there may also be a greater number of infestation events, or a higher value of loss tied to infestation.

Invasive Species

a) Asian long-horned beetle
b) Emerald ash borer
c) Spotted Lanternfly



Source: USDA 2024

Nuclear Incident

Nuclear incidents are a low-probability and high-consequence event. A nuclear incident can have devastating impacts on the County. Nuclear hazards and incidents generally refer to incidents involving a release of significant levels of radioactive materials or exposure of workers or the general public to radiation.

Population Exposed

Peach Bottom		Limerick
60/60 jurisdictions	5/60 jurisdictions	54/60 jurisdictions
50-Mile EPZ	**10-Mile EPZ**	**50-Mile EPZ**

Primary Concerns

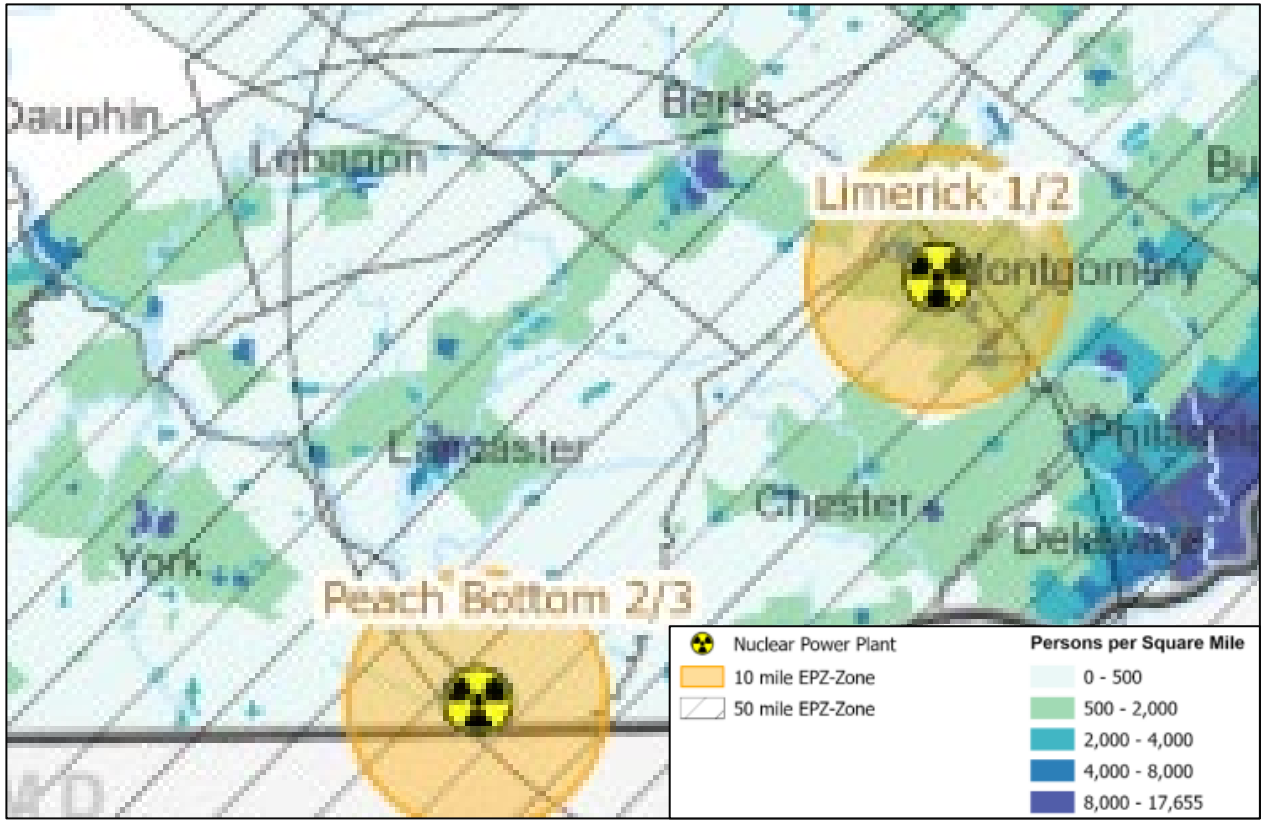
Primary concerns following a nuclear incident or accident are the impact on public health from:

- direct exposure to a radioactive plume
- ingestion of contaminated food, water, and milk
- inhalation of radioactive materials
- long-term exposure to deposited radioactive materials in the environment that may lead to either acute or chronic health effects

Notable Occurrence

The March 28, 1979 incident at the Three Mile Island nuclear facility, which is no longer in operation, led to the development of a 14-year cleanup and scientific effort. Despite the severity of the damage, no injuries due to radiation exposure occurred. However, numerous studies were conducted to determine the measurable health effects related to radiation and/or stress.

EPZ-Zones Inclusive of Lancaster County



Source: PEMA 2023

Pandemic and Infectious Disease

Pandemics and infectious diseases can impact the entirety of Lancaster County. Emerging diseases are difficult to contain or treat and present significant challenges to risk communication since the mechanics of transmission, laboratory identification, and effective treatment protocols may be unknown.

Population Exposed

552,984

The entire County is susceptible. As population density increases in the County, so too will the probability of a disease outbreak event to occur. When there is a significant change in a circulating strain of a virus, more of the population is susceptible and the strain could rapidly spread from person to person.

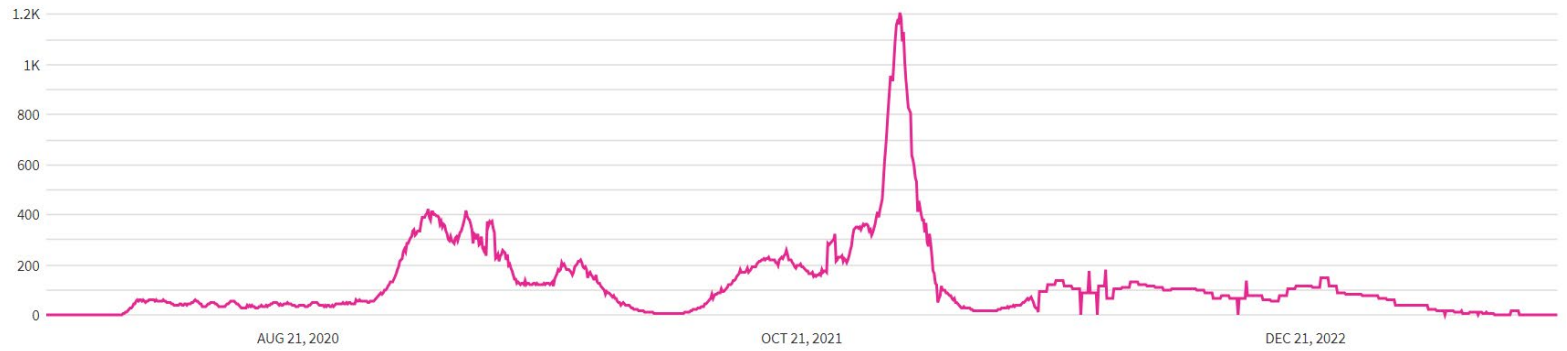
Vulnerable Populations

- Healthcare providers and first responders have an increased risk of exposure due to their frequent contact with infected populations.
- The elderly and immunocompromised individuals may have increased vulnerability to becoming infected or experience exacerbated impacts depending upon the disease.

Climate Change Impacts

There has been discussion that rising temperatures will increase the number of mosquitoes that can transmit disease among humans. Furthermore, the increase in projected precipitation may lead to larger areas of pooling water, creating a more favorable environment for mosquito habitats.

COVID-19 Cases Per Day in Lancaster County, January 2020 – July 2023



COVID-19 Deaths Per Day in Lancaster County, January 2020 – July 2023



Radon Exposure

Radon is a natural gas that cannot be seen, smelled, or tasted. According to the EPA, radon is estimated to cause more than 20,000 lung cancer deaths per year, second only to smoking as the leading cause of lung cancer. An estimated 40 percent of homes in Pennsylvania are believed to have elevated radon levels.

Primary Influential Factors

1. Radon content of the soil
2. Pressure differential between the interior of the home and the soil
3. Air exchange rate for the home
4. Moisture content surrounding the home
5. Presence and size of entry pathways

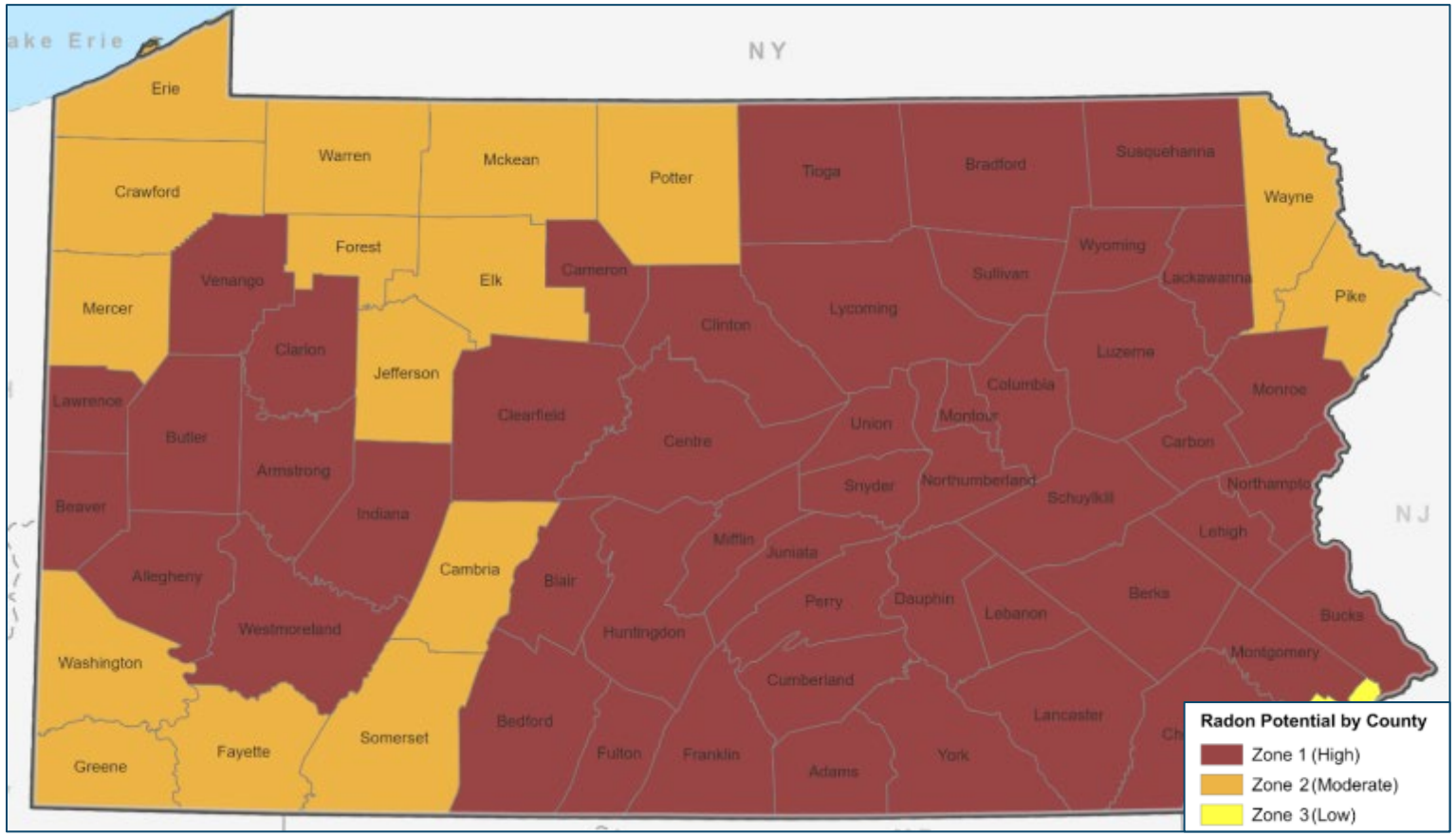
Population Exposed

552,984

The entire County is susceptible

The Pennsylvania Department of Environmental Protection Bureau of Radiation Protection will publish radon testing results if a zip code has had at least 30 tests conducted. The Bureau collected enough radon results from residences in 4 out of 8 zip codes within Lancaster County. For basement tests only, zip code (17601) recorded the highest maximum result (403 pCi/L), with a total recorded number of 13,373 tests. Zip code (17604) recorded the highest average result (10.7 pCi/L), with a total recorded number of 44 tests.

Radon Potential in Lancaster County



Source: PEMA 2023

Subsidence, Sinkhole

Subsidence and sinkholes are common in the Commonwealth. Of particular concern is mine subsidence due to the number of underground coal and clay mines. The karst topography, including limestone bedrock, makes Lancaster County susceptible to subsidence and sinkholes.

Climate Change Impacts

Extended growing seasons, higher temperatures, and the possibility of more intense and less frequent summer rainfall may lead to changes in water availability. Changes to the water balance of an area (including over-withdrawal of groundwater, diverting surface water, and drilling new water wells) will cause sinkholes. These actions can also accelerate the natural processes of bedrock degradation, which can have a direct impact on sinkhole creation.

Number of Buildings Exposed

105,107

Subsidence/Sinkhole Hazard Area

Population Exposed

238,693

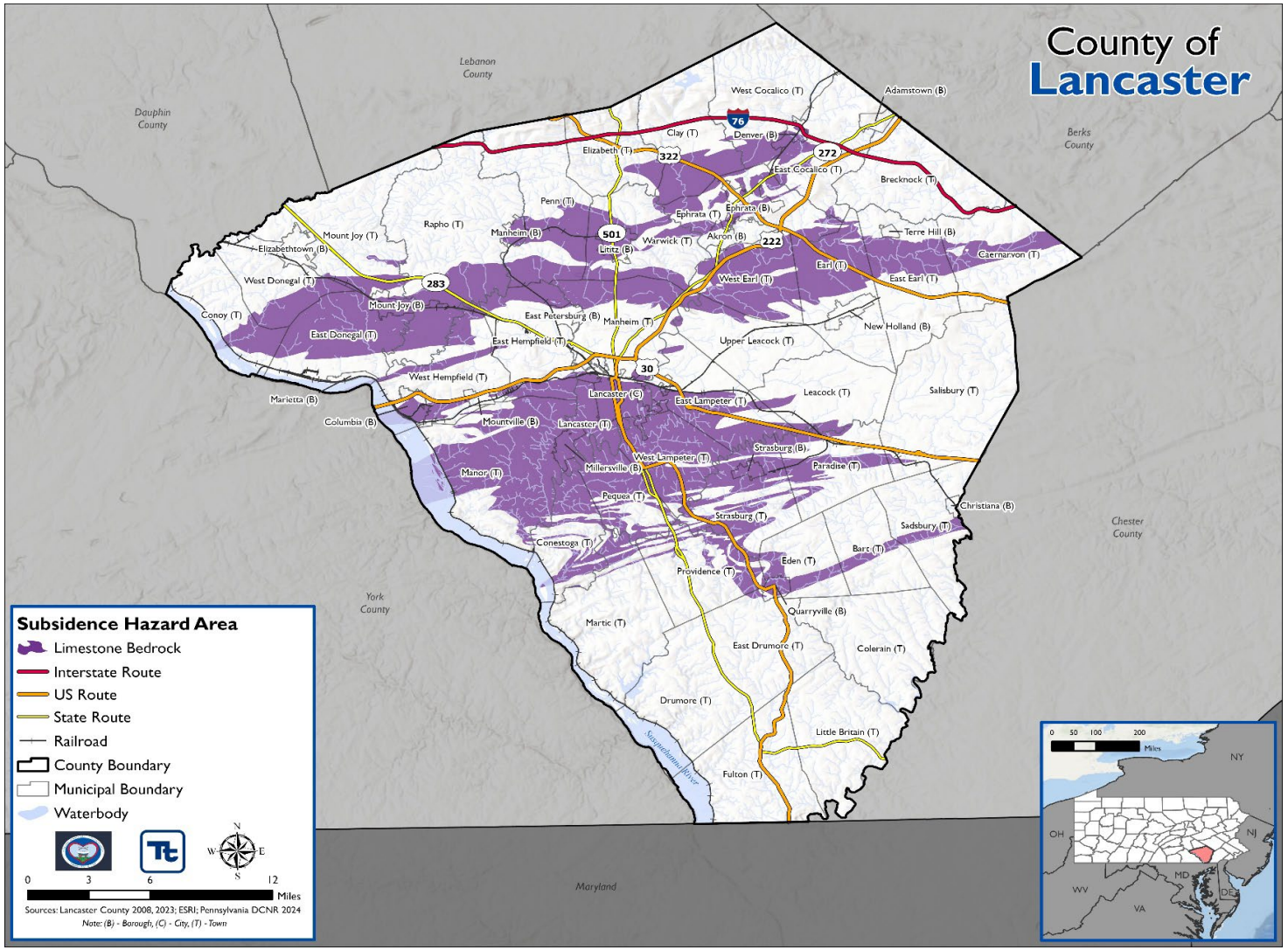
Subsidence/Sinkhole Hazard Area

Building Replacement Cost Value

$191,708,236,807

Subsidence/Sinkhole Hazard Area

Subsidence and Sinkhole Hazard Area in Lancaster County



Tornado, Windstorm

Tornadoes and windstorms can occur throughout Lancaster County, though events are usually localized. It is critical for the community to prepare and be aware of forecasts in their local jurisdictions.

Population Exposed

552,984

The entire County is susceptible

500-Year MRP Event

28	16
Displaced Households	Persons Seeking Shelter

Potential Impacts

- Power Outages
- Traffic Accidents
- Downed Trees
- Property Damage
- Personal Injury / Loss of Life

Debris Production (tons)

60,464	46	253,415
Brick and Wood	Concrete and Steel	Tree

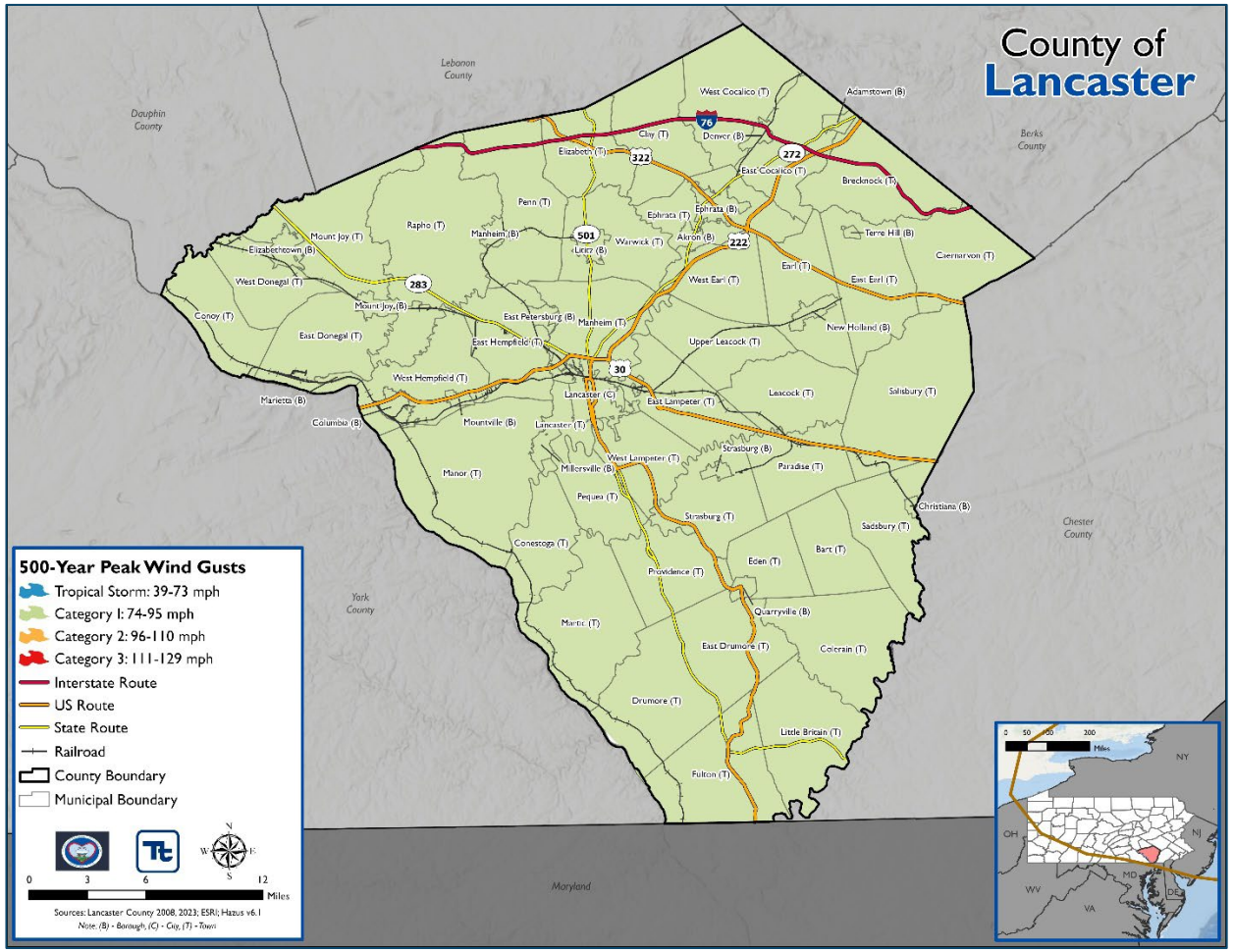
Building Damages from the 500-Year MRP Event

41	352	3,143	14,077
Destruction	Severe Damage	Moderate Damage	Minor Damage

Total Estimated Building Losses from the 500-Year MRP Event

$232,858,929	$181,188,253	$8,074,963	$32,649,738
Residential	Commercial	Industrial	All Other Occupancies

500-Year MRP Peak Wind Gusts in Lancaster County



Transportation Accident

Transportations accidents can occur anywhere in the County at any time. Transportation accidents are defined as incidents involving highway, air, and rail travel, resulting in death, serious injury, extensive property loss or damage or situations that cause delay or closure.

Population Exposed

552,984

The entire County is susceptible

Hazard Types

- Vehicular
- Aviation
- Rail

Miles of Road

Interstate Highway	30.6
Freeways/Expressways	20.0
Principal Arterials	99.7
Minor Arterials	291.2
Major Collectors	456.7
Minor Collectors	234.3
Local Road: State-Owned	143.7
Local Road: Municipal-Owned	2,586.6
Total	**3,896.8**

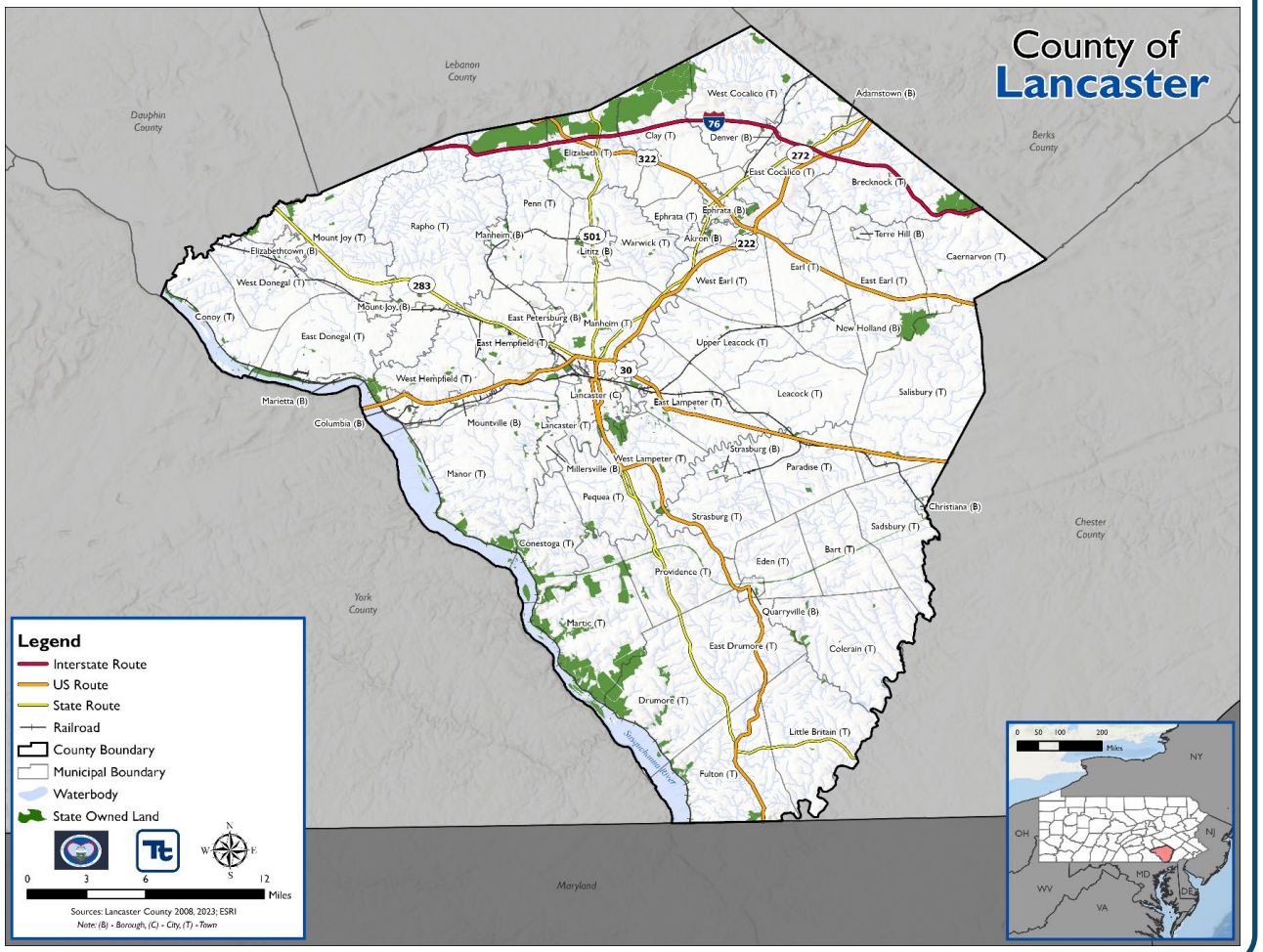
2023 Transportation Fatalities

Vehicle	Aviation	Rail
49	0	0

2023 Transportation Accidents

Vehicle	Aviation	Rail
5,573	3	0

Transportation Routes in Lancaster County



Utility Interruption

Utility interruption can occur anywhere in the County and has the potential to be life-threatening. It is critical for the community to prepare and be aware of forecasts in their local jurisdictions which may result in utility interruptions.

Population Exposed

552,984

The entire County is susceptible

Vulnerable Populations

Utility interruptions most severely affect individuals with access and functional needs (such as children, the elderly, and individuals with special medical needs). Special medical equipment will not function without power.

Climate Change Impacts

The Commonwealth has warmed more rapidly than the national average, and winter is warming faster than other seasons. Evidence shows that hot days are happening more often, and multiday heat waves are expected to occur more often and last longer in the upcoming decades which may impact utilities in the County.

Power Restoration in Lancaster County



Source: WGAL 2014

Cascading Impacts

- Fires
- Temperature-Related Illnesses
- Traffic Accidents
- Loss of Food, Water, and Medical Resources
- Wastewater and Potable Water Utility Interruption

Wildfire

Wildfires can occur at any time of the year but are most likely in Lancaster County during a drought, and can occur in fields, grass, and brush as well as in the forest itself. Under dry conditions or droughts, wildfires have the potential to burn forests as well as croplands. Wildfires can have impacts on critical services, utilities, and properties, and may cause injury.

Population Exposed

27,594

WUI Interface Hazard Area

29,090

WUI Intermix Hazard Area

Number of Buildings Exposed

19,028

WUI Interface Hazard Area

19,801

WUI Intermix Hazard Area

Building Replacement Cost Value

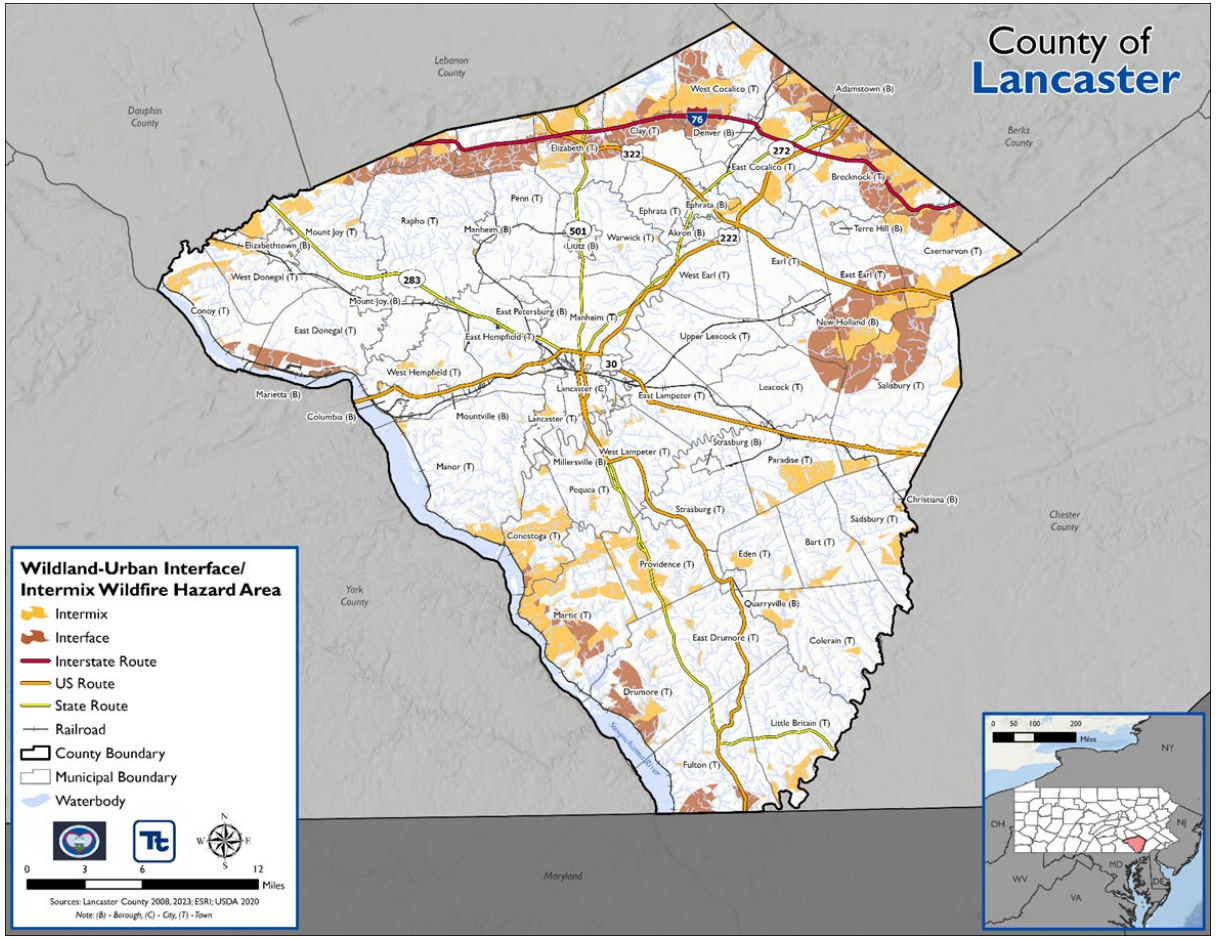
$12,682,104,639

WUI Interface Hazard Area

$12,410,047,128

WUI Intermix Hazard Area

Wildfire Urban Intermix/Interface for Lancaster County



Lifelines Exposed

288

WUI Interface Hazard Area

252

WUI Intermix Hazard Area

Climate Change Impacts

Lancaster County can expect warmer and drier conditions which may increase the frequency and intensity of wildfires. Higher temperatures are expected to increase the amount of moisture that evaporates from land and water. These changes have the potential to lead to more frequent and severe droughts, which, in turn, may increase the likelihood of wildfires.

Winter Weather

Severe winter weather can occur anywhere in Lancaster County and has the potential to be life-threatening. It is critical for the community to prepare and be aware of forecasts in their local jurisdictions.

Population Exposed

552,984

The entire County is susceptible

Buildings Exposed

285,764

The entire County is susceptible

Hazard Types

Heavy Snow	Blizzard	Sleet
Freezing Rain	Ice Storm	Nor'easter

Climate Change Impacts

Snowfall is likely to become less frequent, with the season decreasing in length. As winters continue to warm, ice is projected to become rarer, which may lead to more snow in the short term. Over the long term, however, more of this is likely to fall as rain.

Notable Occurrence

A winter storm in 1993 resulted in reports of nearly 3 feet of snow across Lancaster County. There were two fatalities and an estimated $5 million in property damage.

Plow Truck Clears Road in Lancaster County



Source: LancasterOnline



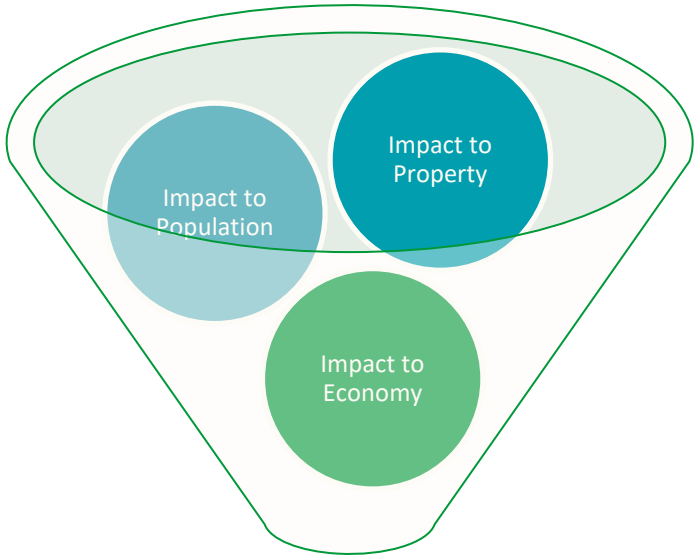
Hazard Rankings

Review the calculated hazard rankings and provide your feedback.

Preliminary Hazard Ranking Methodology

- The calculated probability of a hazard occurring based on historical data
- *Impacts to people, property, and the economy* based on GIS data and analysis of exposure.
- The degree to which *climate change* will affect future occurrences based on best available data.
- The degree to which existing *capabilities* (the ability of your community to respond to the hazard based on ordinances, mitigation strategies and procedures, and readiness) decrease overall risk.

Preliminary Hazard Ranking Formula



Probability of Occurrence (30%) + Impacts (30%) + Adaptive Capacity (30%) + Climate Change (10%) → Preliminary Hazard Ranking

Local community input to adjust preliminary rankings

Preliminary Risk Ranking (County)

High

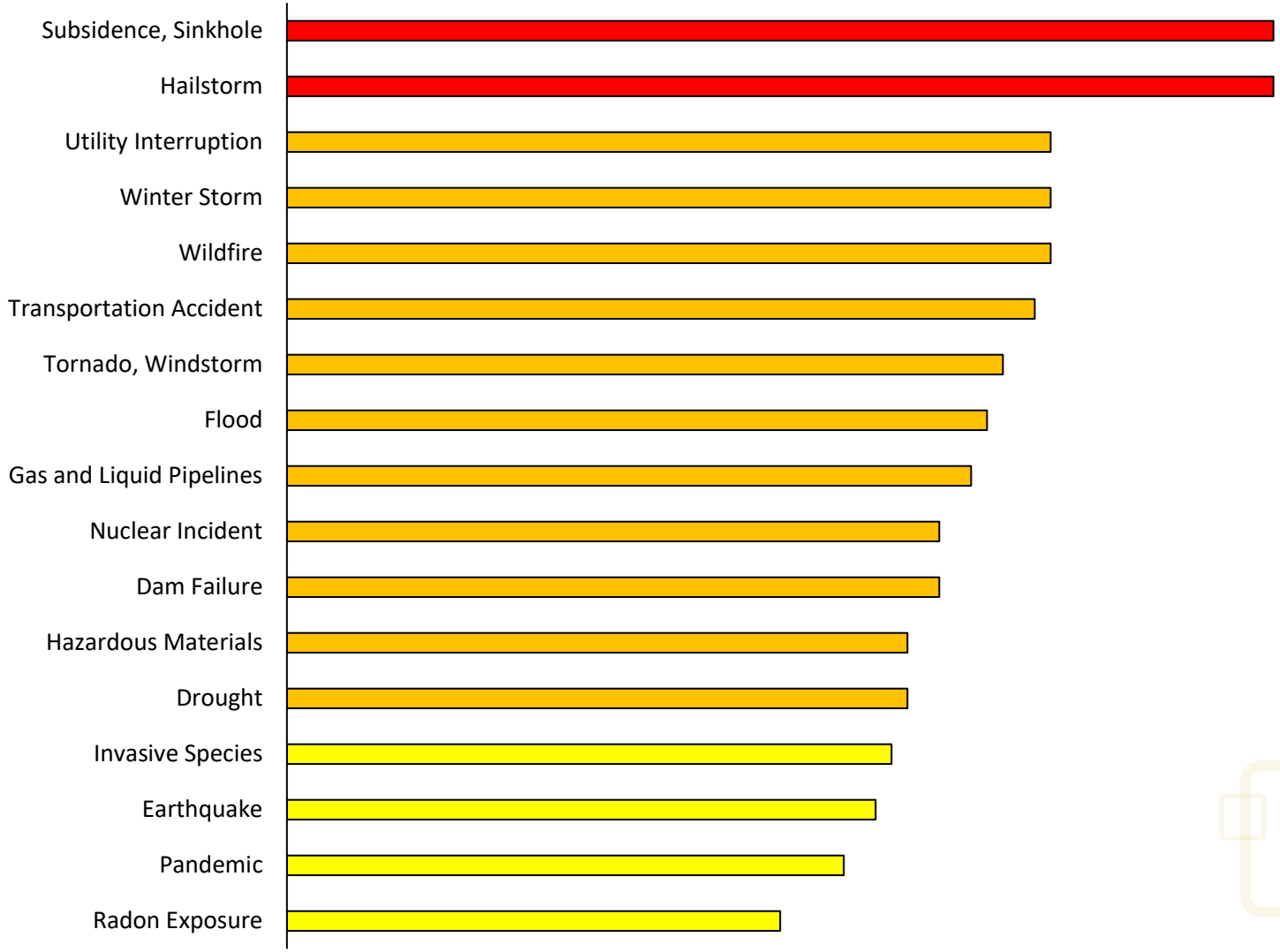
- Subsidence, Sinkhole
- Hailstorm

Medium

- Utility Interruption
- Winter Storm
- Transportation Accident
- Tornado, Windstorm
- Flood
- Gas and Liquid Pipelines
- Nuclear Incident
- Dam Failure
- Hazardous Materials
- Drought

Low

- Invasive Species
- Earthquake
- Pandemic
- Radon Exposure





Review Preliminary Rankings

Review Preliminary Rankings

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com) by Monday, October 7

Jurisdiction: County of Lancaster

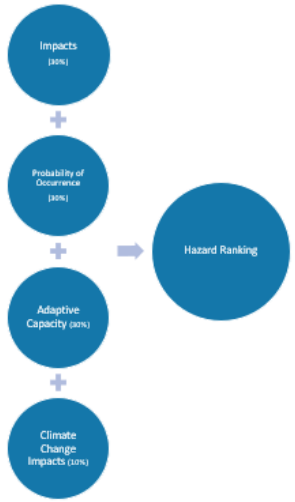
Name/Title of Individual Completing Worksheet:

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. The calculated probability of a hazard occurring based on historical data.
2. Impacts to people, property, and the economy based on GIS data and analysis of exposure.
3. The degree to which climate change will affect future occurrences based on best available data.
4. Adaptive Capacity, which is the ability your community has to respond to the hazard based on ordinances, mitigation strategies and procedures, and readiness.



What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for your community. Please review the calculated rankings and indicate whether or not you want to adjust the ranking. If you are changing the ranking, please provide detail as to why you are changing the ranking. *REMEMBER, for every hazard of concern, you need at least one mitigation action.*

Continued on next page.

Lancaster County | Hazard Mitigation Plan 2025 Update
Preliminary Hazard Ranking Review

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	Preliminary Ranking	Agree with preliminary ranking (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Dam Failure	Medium		
Drought	Medium		
Earthquake	Low		
Environmental Hazards: Gas and Pipeline	Medium		
Environmental Hazards: Hazardous Materials	Medium		
Flood, Flash Flood, Ice Jam	Medium		
Hailstorm	High		
Invasive Species	Low		
Nuclear Incident	Medium		
Pandemic and Infectious Disease	Low		
Radon Exposure	Low		
Subsidence, Sinkhole	High		
Tornado, Windstorm	Medium		
Transportation Accident	Medium		
Utility Interruption	Medium		
Wildfire	Medium		
Winter Storm	Medium		

Lancaster County | Hazard Mitigation Plan 2025 Update
Preliminary Hazard Ranking Review

What is Adaptive Capacity?

Adaptive capacity describes a jurisdiction's current ability to protect from or withstand a hazard event.

- **Weak** adaptive capacity means the jurisdiction does not have the capability to effectively respond, which leads to an increase in vulnerability. Examples include weak/outdated/inconsistent plans, policies, codes/ordinances in place; no redundancies; limited to no deployable resources; limited capabilities to respond; long recovery.
- **Moderate** adaptive capacity means minimum requirements are in place; moderate capabilities; mitigation measures are identified but not implemented widespread; jurisdiction can recover but needs outside resources.
- **Strong** adaptive capacity means the jurisdiction does have the capability to effectively respond, plans/policies exceed minimum requirements; deployable resources all of which decreases vulnerability.

Table 2. Adaptive Capacity

Hazard	Preliminary Ranking	What should we indicate for your community's adaptive capacity for each hazard?
Dam Failure	Moderate	
Drought	Moderate	
Earthquake	Moderate	
Environmental Hazards:	Moderate	
Gas and Pipeline	Moderate	
Environmental Hazards: Hazardous Materials	Moderate	
Flood, Flash Flood, Ice Jam	Moderate	
Hailstorm	Moderate	
Invasive Species	Moderate	
Nuclear Incident	Moderate	
Pandemic and Infectious Disease	Moderate	
Radon Exposure	Moderate	
Subsidence, Sinkhole	Moderate	
Tornado, Windstorm	Moderate	
Transportation Accident	Moderate	
Utility Interruption	Moderate	
Wildfire	Moderate	
Winter Storm	Moderate	

*Note: *Adaptive capacity was assumed Moderate for all hazards.*

Next Steps

- Continue public outreach efforts via social media, in-person events and meetings, and through other contacts
- Submit Preliminary Hazard Ranking Worksheet by Monday, October 7.
- Risk Assessment Meeting with Steering Committee is Wednesday, October 16 from 4:00PM – 6:00PM
  - Room 100 at the Lancaster County Public Safety Training Facility (101 Champ Blvd., Manheim, PA 17545).
- Mitigation Strategy Workshop with Steering Committee is TBD



Questions?



Lancaster County Project Contact

Brooke Bowman | Community Resilience Coordinator
(717) 664-1340| brbowman@lancastercountypa.gov

Tetra Tech Project Contact

Jessica Stokes, MSEM, NJCEM | Project Manager
(973) 630-8017 | jessica.stokes@tetratech.com

Thank You!

LANCASTER COUNTY HAZARD MITIGATION PLAN UPDATE
Steering Committee Risk Assessment Meeting – AGENDA
MEETING DATE/TIME: Wednesday, October 16 – 4:00 pm – 6:00 pm

In-Person
Room 100, Lancaster County Public Safety Training Facility
(101 Champ Blvd., Manheim, PA 17545)

OR

Virtual
Meeting via Teams
https://msteams.link/9R1P

- **Welcome and Introductions**
- **Project Status**
  - Project schedule
  - Public outreach
- **Risk Assessment Overview**
  - What is risk?
  - Purpose of the risk assessment
- **Preliminary Risk Assessment Results**
  - Review risk assessment details for each hazard of concern
- **Hazard Ranking**
  - Preliminary hazard ranking methodology
  - Preliminary hazard ranking formula
  - County hazard ranking
- **Review Preliminary Hazard Rankings**
  - Risk ranking worksheet
- **Next Steps**
- **Questions/Discussion**

Lancaster County Project Contact
Brooke Bowman, Community Resilience Coordinator
Lancaster County Emergency Management
(717) 664-1340 | brbowman@lancastercountypa.gov

Tetra Tech Project Contact
Jessica Stokes, MSEM, NJCEM
Tetra Tech, Inc.
(973) 630-8017 | jessica.stokes@tetratech.com

Lancaster County, PA – Hazard Mitigation Plan 2025 Update
Steering Committee Risk Assessment Meeting | Meeting Minutes

Purpose of Meeting:	Steering Committee Risk Assessment Meeting
Location of Meeting:	Teleconference / In-Person @ Lancaster County Public Safety Training Facility (101 Champ Blvd., Manheim, PA 17545)
Date of Meeting:	October 16, 2024 @ 4:00 P.M.

Attendees:

- **Lancaster County Emergency Management Agency**
  - Ben Herskowitz, Deputy Director
  - Brooke Bowman, Community Resilience Coordinator & Volunteer Liaison
  - Brett Fassnacht, Training & Exercise Coordinator
- **Lancaster County Department of Public Safety**
  - Todd Kirkpatrick, Director
- **Lancaster County Planning Department**
  - Sharon Cino, Senior Planner
- **Lancaster County General Services**
  - Bob Devonshire, Director
- **Well Span Health**
  - Kimberly Stonebraker, Emergency Manager
- **Adamstown Borough**
  - Timothy Soley, Emergency Management Coordinator
- **Columbia Borough**
  - Jay Barninger, Emergency Management Coordinator
- **Earl Township**
  - Jamie Weir, Emergency Management Coordinator
- **East Petersburg Borough**
  - Violet DeStefano, Emergency Management Coordinator
  - Diane Garber, Emergency Management
- **East Hempfield Township**
  - Diane Garber, Emergency Management Coordinator
- **Eden Township**
  - Jason Skonberg, Deputy Emergency Management Coordinator
- **Ephrata Borough**
  - Randy Gockley, Emergency Management Coordinator
- **Lancaster City**
  - Chris DeLong, Deputy Chief, Lancaster City Bureau of Fire; Emergency Management Coordinator
- **Lancaster Township**
  - Brett Fassnacht, Emergency Management Coordinator
- **Lititz Borough**
  - Duane Ober, Emergency Management
- **Mount Joy Borough**
  - Philip Colvin, Emergency Management Coordinator
- **Rapho Township**
  - Lori Shenk, Emergency Management Coordinator
- **Sadsbury Township**
  - Erik Lofgren, Emergency Management Coordinator
- **Warwick Township**
  - Duane Ober, Emergency Management
- **West Hempfield Township**
  - Andrew Stern, Township Manager
- **West Lampeter Township**
  - Ken Barton, Emergency Management Coordinator
- **Tetra Tech**
  - Jessica Stokes, Project Manager
  - Emily Vassallo, Lead Planner

Agenda Summary: The purpose of the meeting was to provide an overview of the hazard mitigation planning process, discuss public and stakeholder outreach efforts, review the risk assessment results, including the County hazard ranking, obtain feedback, introduce the hazard ranking worksheets, and review next steps.

Item No.	Description	Action item(s):
1	**Introductions**	-

2	**Project Status**
	• Municipal Participation Status
	• Public Outreach and Engagement
	  ○ Post links on social media and department/agency websites
	  ○ Stakeholder and neighboring municipalities surveys have been distributed
	  ○ Make efforts to reach out to:
	  ▪ General Public
	  ▪ Stakeholders
	  ▪ Neighbors
		Steering Committee
		• Post links on social media and department/agency websites
		• Make efforts to reach out to public, stakeholders, neighbors, and socially vulnerable populations

3	**Risk Assessment Overview**
	• Risk is defined as a function of:
	  ○ Hazard
	  ▪ Source of potential danger or adverse condition
		-

	○ Exposure ▪ Manmade or natural features that are exposed to the hazard ○ Vulnerability ▪ Damage susceptibility of the exposed features ○ Adaptive Capacity (or capability) ▪ Plans/policies ▪ Response/recovery ▪ Financial resources	
4	**Risk Assessment Results** • Provided an overview of the results from the risk assessment for each hazard. Results were a combination of qualitative and quantitative data. ○ Hazards: ▪ Dam Failure ▪ Drought ▪ Earthquake ▪ Environmental Hazards: ▪ Gas and Pipeline • Conversations occurred on where data for profile was sourced from. ▪ Environmental Hazards: Hazardous Materials ▪ Flood, Flash Flood, Ice Jam ▪ Hailstorm ▪ Invasive Species • Discussion of "Invasive Species" ranking- bumping up from Low due to impact to the agriculture community. ▪ Nuclear Incident ▪ Pandemic and Infectious Disease ▪ Radon Exposure • Concern on current ranking – increase to high on level with EPA reports ▪ Subsidence, Sinkhole ▪ Tornado, Windstorm ▪ Transportation Accident • Add four vehicle accidents involving trains; 1 resulted in a fire ▪ Utility Interruption ▪ Wildfire ▪ Winter Storm	-
5	**Hazard Rankings** • The calculated probability of a hazard occurring based on historical data • *Impacts to people, property, and the economy* based on GIS data and analysis of exposure. • The degree to which *climate change* will affect future occurrences based on best available data. • The degree to which existing *capabilities* (the ability of your community to respond to the hazard based on ordinances, mitigation strategies and procedures, and readiness) decrease overall risk. • Preliminary Ranking: ○ High: Subsidence, Sinkhole; Hailstorm; Flood	**Tetra Tech** • Revise risk ranking based on received input. • Add new hazards of concern – cyber incidents, terrorism, mental health and substance use

	○ Medium: Utility Interruption; Winter Storm; Wildfire; Transportation Accident; Tornado, Windstorm; Gas and Liquid Pipelines; Nuclear Incident; Dam Failure; Hazardous Materials; Drought ○ Low: Invasive Species; Earthquake; Pandemic; Radon Exposure	
6	**Review Preliminary Hazard Rankings** • Complete Table 1 in the worksheet by indicating whether the hazard ranking for the County is representative of the hazards in the jurisdiction. If you would like to change the ranking, please identify the desired new ranking and a justification for the adjustment. • Complete Table 2 in the worksheet by indicating whether the preliminary adaptive capacity ranking is agreed with. If you would like to change the ranking, please identify the desired new ranking and a justification for the adjustment.	**Tetra Tech** • Revise risk ranking with approval from Planning Team and send updated worksheets to Steering Committee
7	**Next Steps** • Share information about the HMP Update via social media, community groups, and networks • Complete Risk Rankings worksheet when re-distributed • Stay tuned for the Mitigation Strategy Workshop meeting date/location	-
8	**Questions/Discussion** • Discussions on new hazards of concern. • Discussions on re-ranking of hazards.	-

Department of Public Safety Sign-In / Roster

COURSE or TOPIC: HMP Steering Committee Meeting

Instructor:

Date: 10-16-24 **Page** ____ **of** ____

DEPARTMENT OF PUBLIC SAFETY

NAME	AGENCY	EMAIL	INITIALS
Brooke Bowman	Lancaster DPS	brbowman@lancastercountypa.gov	
Ben Hershowitz	LANC DPS		
Lori Shenk	Rapho Twp	lshenk@degazzd.com	LS
JASON SIKONBERG	EDEN TWP	EDENTWPDEMC@COMCAST.NET	JS
Duane Ober	Lititz Boro/Warwick Twp.	dober@warwicktownship.org	
BRETT FASSNACHT	LANCASTER TOWNSHIP	BRETT.FASSNACHT@LTFD.ORG	BF
Todd Kirkpatrick	LANC. DPS	HLKirkpatrick@LancasterCountyPA.Gov	
Chris Delong	Lancaster City	cdelong@cityoflancasterpa.gov	CD
Kim Stonebraker	WellSpan	KStonebraker5@WellSpan.org	KS



TETRA TECH

County of Lancaster ~ Pennsylvania ~ Founded May 10, 1729

Lancaster County Hazard Mitigation Plan 2025 Update

Steering Committee Risk Assessment Meeting

October 16, 2024



Today's Agenda

1. Welcome and Introductions
2. Project Status
3. Risk Assessment Overview
4. Risk Assessment Results
5. Hazard Rankings
6. Review Rankings
7. Next Steps
8. Questions/Discussion





Project Status

Schedule

1 Planning Process

2 Risk Assessment

3 Public Involvement Strategy

4 Mitigation Strategy

5 Plan Maintenance

6 Plan Update and Deliverables

7 Plan Adoption

8 Project Management and Coordination

Kick-Off Meetings – October 2023

- Goals and Objectives – August 2024
- Risk Assessment – September 2024

Identify Actions – August-November 2024

Finalize by October 2024

- Draft in December 2024
- Draft to PEMA by February 2025
- Draft to FEMA by April 2025

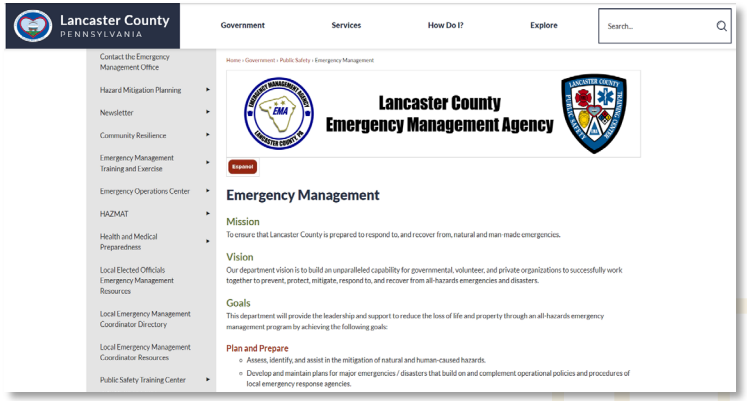
Public Outreach

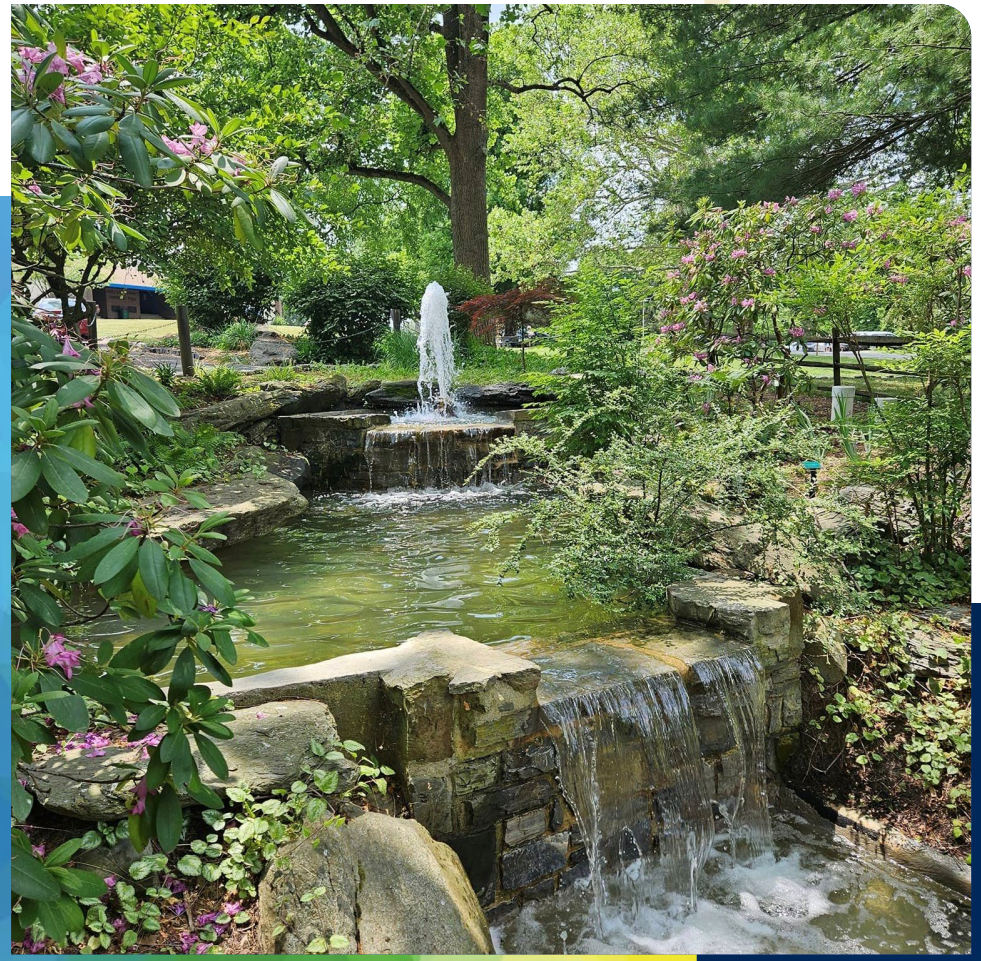
- Public Outreach Toolkit
  - Social media templates and posts
  - Press release templates
  - Printable materials
- Surveys
  - Stakeholders
  - Neighboring communities
  - Public
- County Website











Risk Assessment Overview

What is Risk?

Risk is defined as a function of :

- Hazard
  - Source of potential danger or adverse condition
- Exposure
  - Manmade or natural features that are exposed to the hazard
- Vulnerability
  - Damage susceptibility of the exposed features
- Adaptive Capacity (or capability)
  - Plans/policies
  - Response/recovery
  - Financial resources

Purpose of Risk Assessment

- To get a better understanding of the risks you face
- Initial results based on available data
- Quantitative data (population/structures exposed, structural damages within hazard zones) used when available
- Qualitative community input (such as unmapped flood areas) integrated to adjust results
- Local community input to adjust relative rankings





Preliminary Risk Assessment Results

Dam Failure

Dam failures in Lancaster County are a low-probability and high-consequence event. A dam failure can have devastating impacts on the County. While most dams have storage volumes small enough that failures would have little or no consequences, dams with large storage amounts could cause significant flooding downstream.

Number of Dams

84

- 7 High Hazard

Impacts

- Dam failure can cut evacuation routes, limit emergency access, and/or create isolation issues.
- Severe flooding can cause extensive structural damage and withhold essential services.
- The environmental impacts of a dam failure can include significant water-quality and debris-disposal issues or severe erosion that can impact local ecosystems.

Dam Failure Event



Source: Times Union 2021

Climate Change Impacts

Lancaster County is expected to experience increased precipitation and more frequent, intense storms. Excessive rainfall can cause a dam to overflow since these structures are designed partly based on assumptions about river flow and precipitation patterns. More frequent and intense precipitation leads to more intense dam overtopping, potentially affecting a larger area and producing stronger water velocities that exacerbate damages to general building stock and critical facilities.

Drought

Droughts can affect Lancaster County's industries and make day to day tasks more difficult to complete when water usage must be monitored.

Population Exposed

552,984

The entire County is susceptible

Climate Change Impacts

Short-term seasonal droughts lasting weeks or months could increase, especially in the summer. This is because of precipitation falling in more intense bursts with longer dry spells in between and higher temperatures in the summer causing more water to evaporate. The potential increase of short-term droughts may impact water systems, resulting in water shortages.

Drought Damaged Field



Source: New York Times 2012

Hazard Types

Meteorological

Hydrological

Agricultural

Socioeconomic

Earthquake

Earthquakes in Lancaster County are a low-probability and high-consequence event. An earthquake can have devastating impacts on the County. Ground shaking can lead to the collapse of buildings and bridges and disrupt gas lines, electricity, and phone service.

Commercial buildings are the most impacted structure type in terms of incurred damages, followed by residential buildings.

Population Exposed

552,984

The entire County is susceptible

Hazard Types

Surface Faulting

Ground Motion

Liquefaction

Tectonic Deformation

Number of Buildings Exposed

285,764

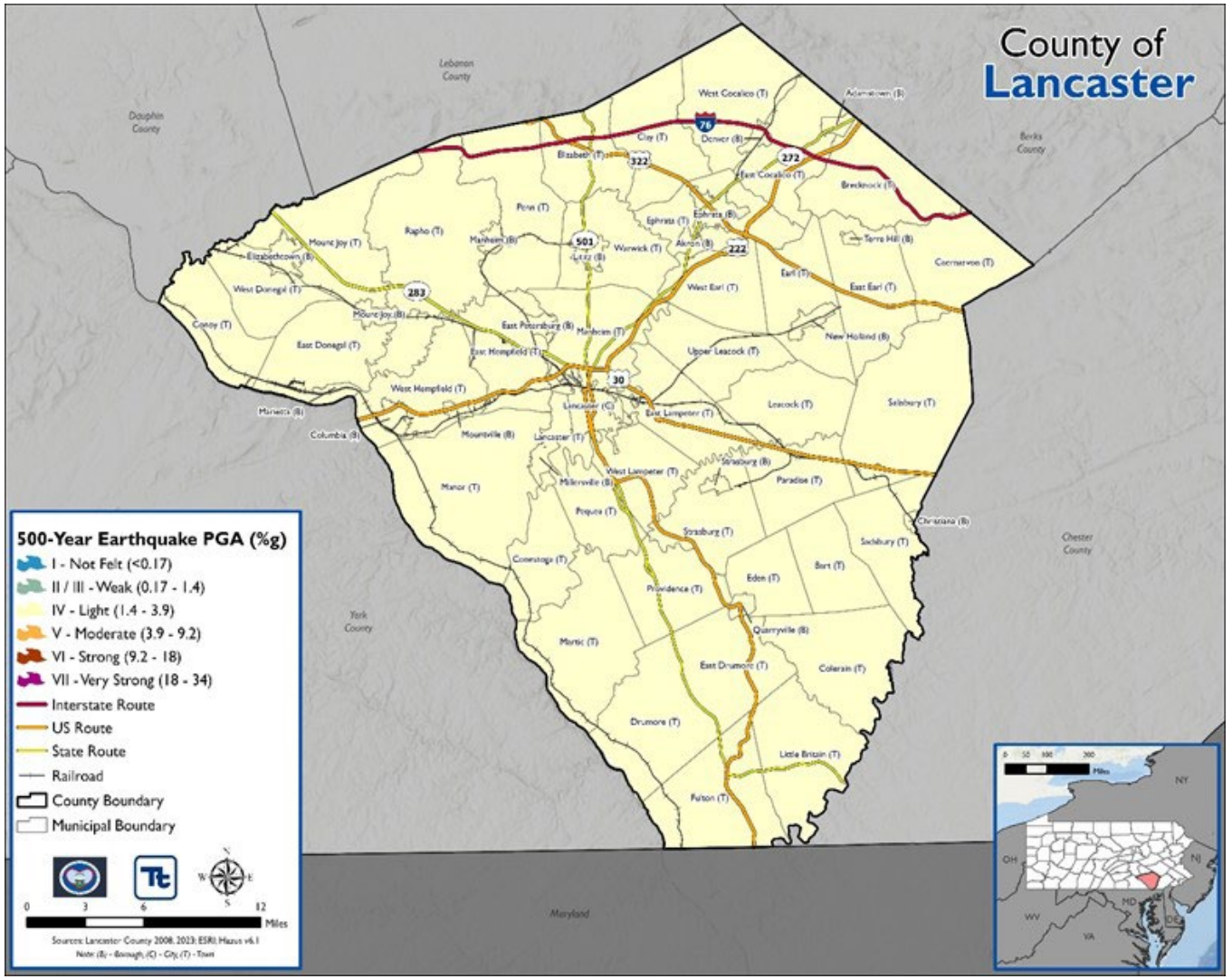
all buildings are exposed

Building Replacement Cost Value

$69,743,412

for impacted buildings

500-Year Peak Ground Acceleration in Lancaster County



Environmental Hazard

Gas and Pipelines

Gas and liquid pipelines run across Lancaster County, particularly in across the County's northern point and it's mid- and lower-regions. Incidents involving gas and liquid pipelines can immediately and adversely impact the general population, causing effects ranging from inconvenient evacuations to personal injury and even death.

Environmental Impacts

Contamination of soil, surface water, and groundwater can result in many direct impacts on surrounding populations (water, food sources) and ecosystems.

Population Exposed

38,496

Within 0.25 miles of a pipeline

Community Lifelines Exposed

538

Within 0.25 miles of a pipeline

Number of Buildings Exposed

18,340

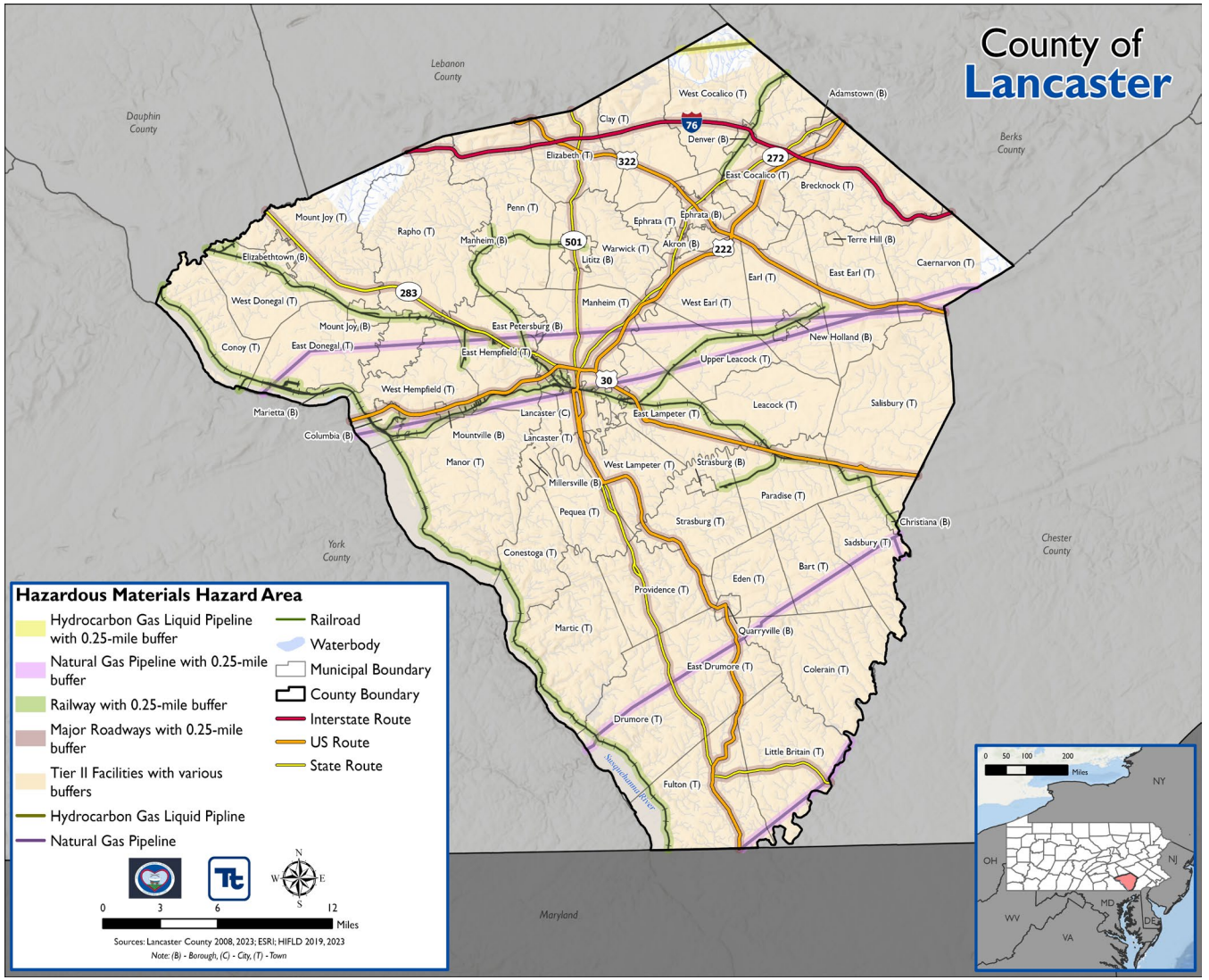
Within 0.25 miles of a pipeline

Building Replacement Cost Value

$30,572,094,336

Within 0.25 miles of a pipeline

Hazardous Materials Hazard Areas in Lancaster County



Environmental Hazard

Hazardous Materials

A hazardous materials incident may occur in transit or at a fixed facility. Release of certain products can adversely impact the general population, ranging from evacuations to personal injury and even death. Moreover, any release can compromise the local environment through contamination of soil, groundwater, or local flora and fauna.

Population Exposed

104,577

Within 0.25 miles of a major highway

57,263

Within 0.25 miles of a rail line

551,061

Unique radius for SARA Type II Facilities

Number of Buildings Exposed

52,535

Within 0.25 miles of a major highway

32,924

Within 0.25 miles of a rail line

283,655

Unique radius for SARA Type II Facilities

Community Lifelines Exposed

1,783

Within 0.25 miles of a major highway

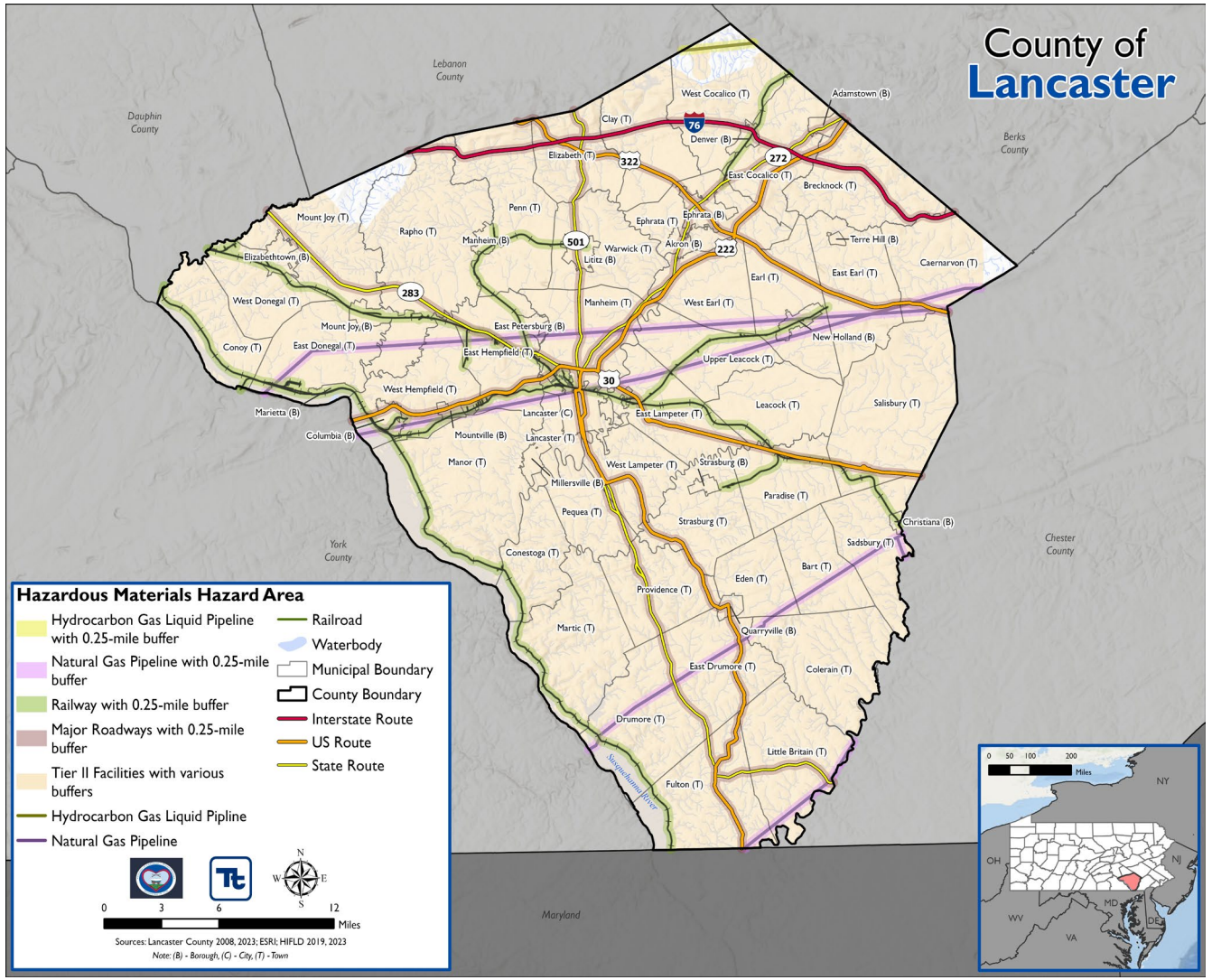
1,143

Within 0.25 miles of a rail line

6,450

Unique radius for SARA Type II Facilities

Hazardous Materials Hazard Areas in Lancaster County



Flood, Flash Flood, Ice Jam

Floods can happen almost anywhere in County but tend to occur in and around areas near existing bodies of water. Sloped land in the County results in flowing water moving down steeper gradients and being naturally or artificially channelized through valleys and gullies.

Climate Change Impacts

An increase in variability of temperature and precipitation may lead to increased frequency and/or severity of events. Summer floods are projected to increase because of increased variability in precipitation. Winter precipitation may increasingly fall as rain rather than snow due to higher temperatures.

Hazard Types

Riverine | Flash Flood | Ice Jam

Number of Buildings Exposed

3,808

In 1% Annual Chance Flood Area

6,260

In 0.2% Annual Chance Flood Area

Population Exposed

3,906

In 1% Annual Chance Flood Area

8,234

In 0.2% Annual Chance Flood Area

Flood Building Replacement Cost Value

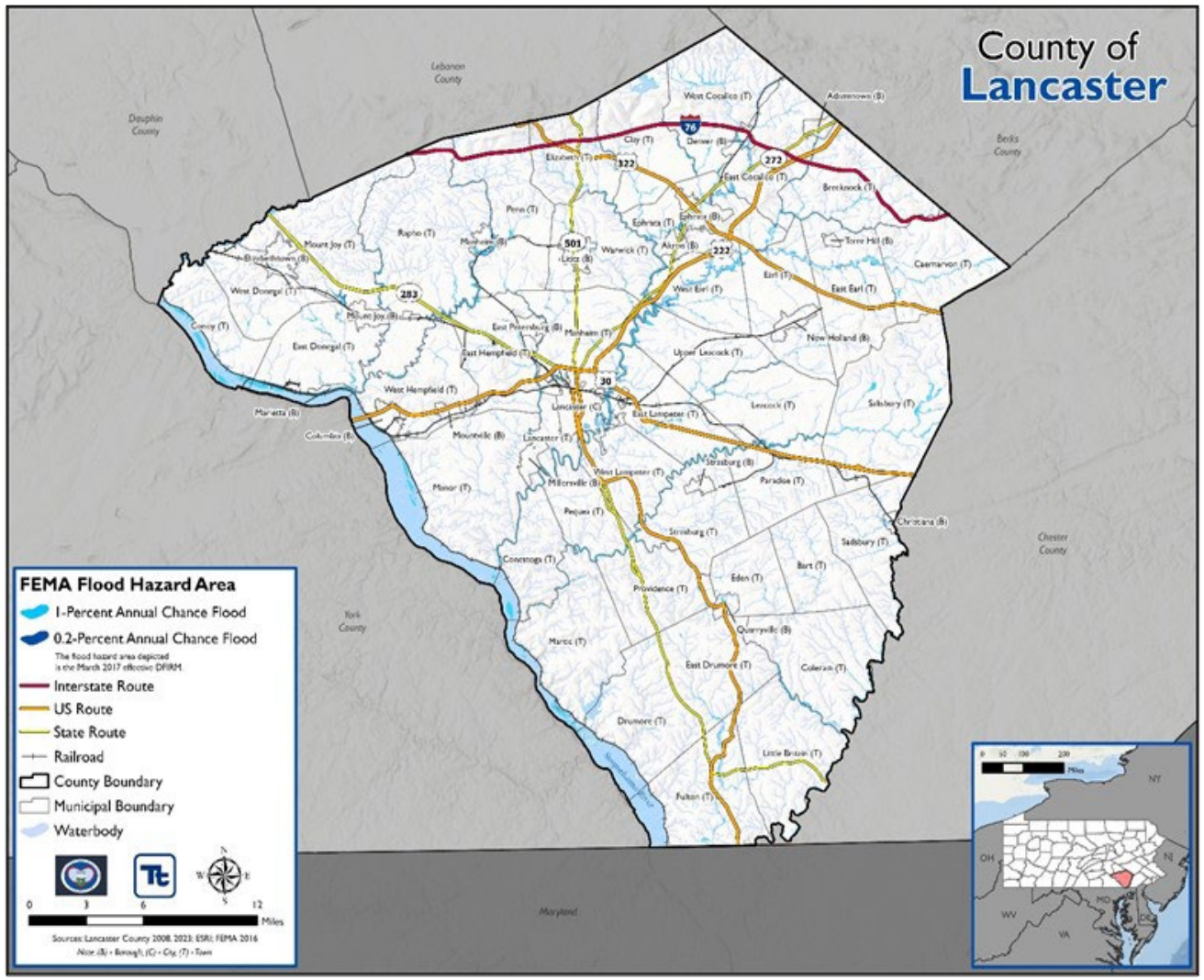
$6,121,756,102

In 1% Annual Chance Flood Area

$8,842,252,425

In 0.2% Annual Chance Flood Area

FEMA Flood Hazard Areas



Hailstorm

A hailstorm is a storm accompanied by hail, which is precipitation in the form of small balls or lumps of clear ice or compact snow. The size of hailstones is directly related to the size and severity of the storm. Damage to crops and vehicles is typically the most significant impact of hailstorms.

Agriculture Exposure

378,574	4,680
Acres of farmland	Farms

Population Exposed

552,984

The entire County is susceptible

Vulnerable Populations

People outdoors (for example, pursuing recreational activities and farming) are considered most vulnerable to the hazard because they ordinarily would receive little to no warning, and shelter may not be available.

Climate Change Impacts

An increase in variability of temperature and precipitation may lead to increased frequency and/or severity of events. An increase in severe storm events can lead to more instances of hail development.

Pile of Fallen Hailstones



Source: WGAL 2017

Invasive Species

Some invasive species are not considered agricultural pests and do not harm humans. Other invasive species can cause significant changes in the composition of County's ecosystems. Invasive species have the potential to impact over 378,574 acres of agricultural land in Lancaster County, which has the market value of $1,854,419,000.

Agriculture Exposure

378,574	4,680
Acres of farmland	Farms

Population Exposed

552,984

The entire County is susceptible

Environmental Impacts

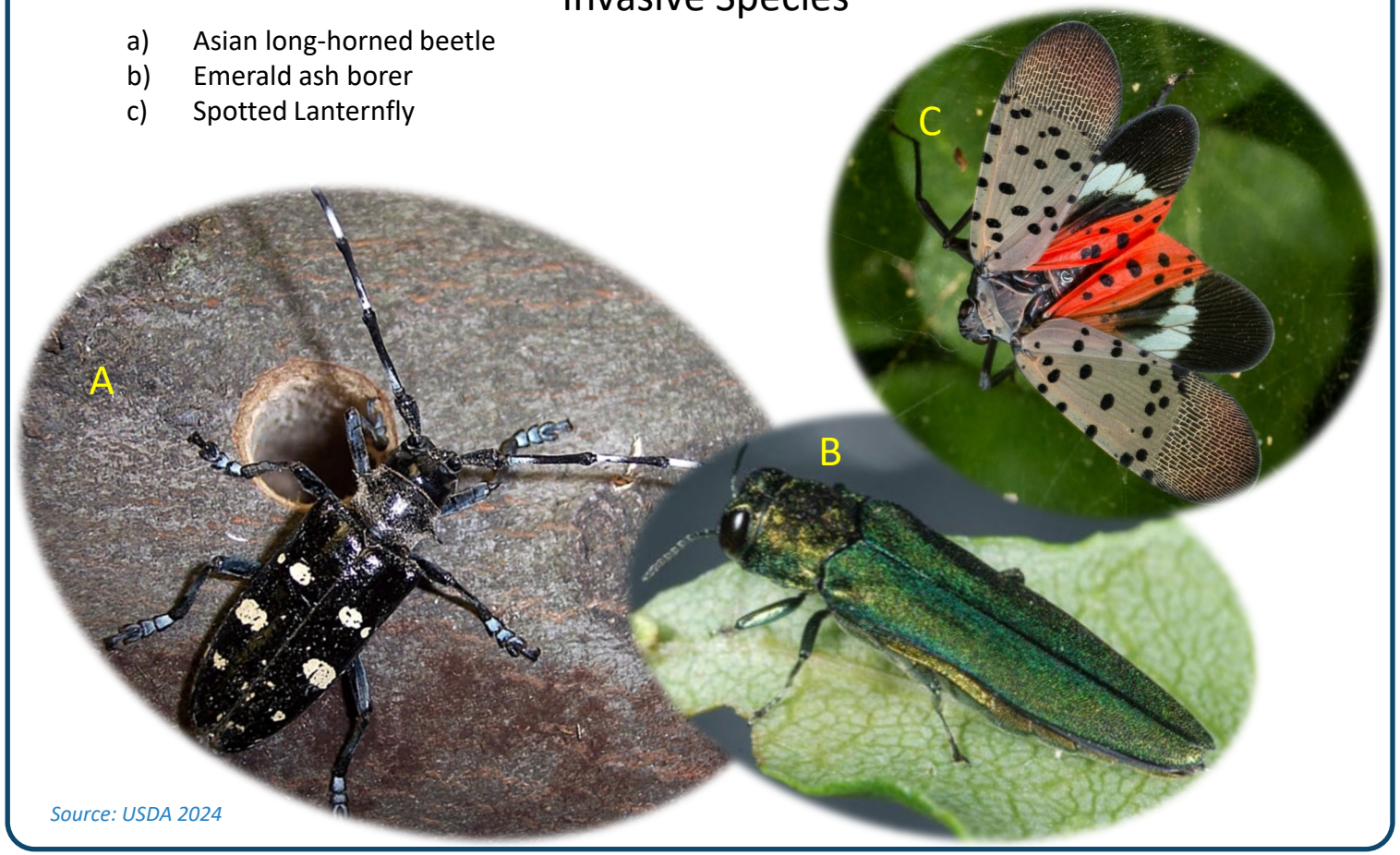
The aggressive nature of many invasive species can cause reductions in biodiversity by crowding out native species. This can affect the health of individual organisms and the overall well-being of the affected ecosystem.

Climate Change Impacts

Changing weather patterns could create a change in the migration patterns for when species move into and out of Lancaster County. If the species have a more prolonged existence in the County, there may also be a greater number of infestation events, or a higher value of loss tied to infestation.

Invasive Species

a) Asian long-horned beetle
b) Emerald ash borer
c) Spotted Lanternfly



Source: USDA 2024

Nuclear Incident

Nuclear incidents are a low-probability and high-consequence event. A nuclear incident can have devastating impacts on the County. Nuclear hazards and incidents generally refer to incidents involving a release of significant levels of radioactive materials or exposure of workers or the general public to radiation.

Population Exposed

Peach Bottom		Limerick
60/60 jurisdictions	5/60 jurisdictions	54/60 jurisdictions
50-Mile EPZ	**10-Mile EPZ**	**50-Mile EPZ**

Primary Concerns

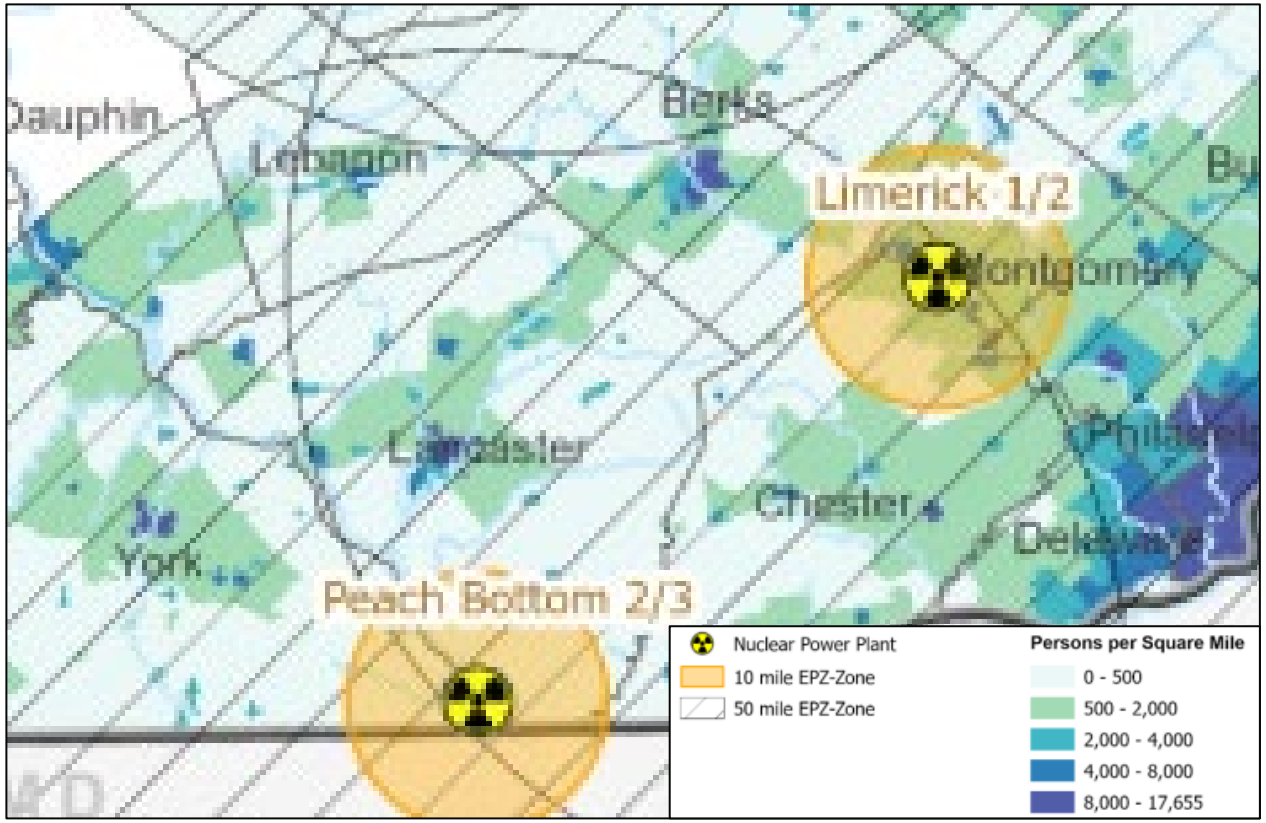
Primary concerns following a nuclear incident or accident are the impact on public health from:

- direct exposure to a radioactive plume
- ingestion of contaminated food, water, and milk
- inhalation of radioactive materials
- long-term exposure to deposited radioactive materials in the environment that may lead to either acute or chronic health effects

Notable Occurrence

The March 28, 1979 incident at the Three Mile Island nuclear facility, which is no longer in operation, led to the development of a 14-year cleanup and scientific effort. Despite the severity of the damage, no injuries due to radiation exposure occurred. However, numerous studies were conducted to determine the measurable health effects related to radiation and/or stress.

Pennsylvania EPZ-Zones Inclusive of Lancaster County



Source: PEMA 2023

Pandemic and Infectious Disease

Pandemics and infectious diseases can impact the entirety of Lancaster County. Emerging diseases are difficult to contain or treat and present significant challenges to risk communication since the mechanics of transmission, laboratory identification, and effective treatment protocols may be unknown.

Population Exposed

552,984

The entire County is susceptible. As population density increases in the County, so too will the probability of a disease outbreak event to occur. When there is a significant change in a circulating strain of a virus, more of the population is susceptible and the strain could rapidly spread from person to person.

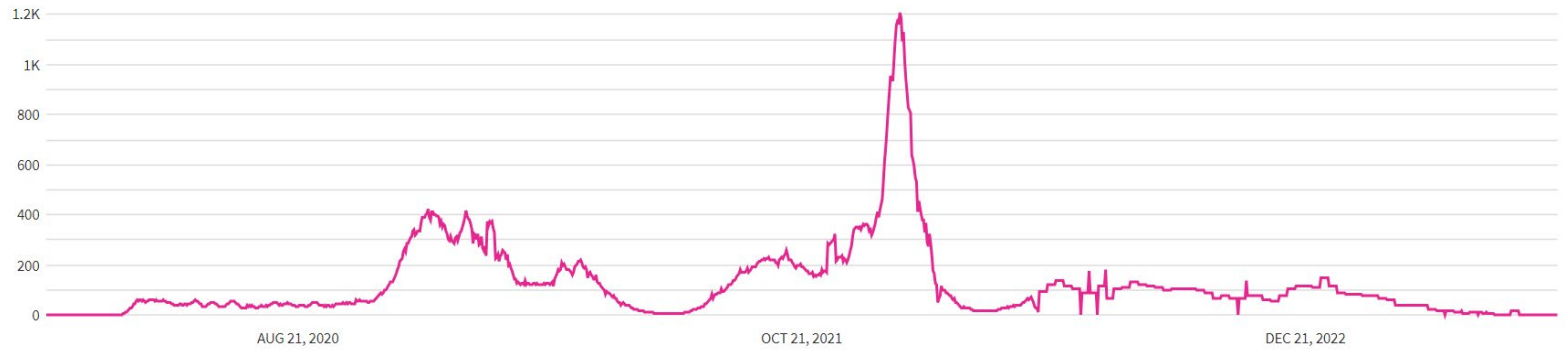
Vulnerable Populations

- Healthcare providers and first responders have an increased risk of exposure due to their frequent contact with infected populations.
- The elderly and immunocompromised individuals may have increased vulnerability to becoming infected or experience exacerbated impacts depending upon the disease.

Climate Change Impacts

There has been discussion that rising temperatures will increase the number of mosquitoes that can transmit disease among humans. Furthermore, the increase in projected precipitation may lead to larger areas of pooling water, creating a more favorable environment for mosquito habitats.

COVID-19 Cases Per Day in Lancaster County, January 2020 – July 2023



COVID-19 Deaths Per Day in Lancaster County, January 2020 – July 2023



Radon Exposure

Radon is a natural gas that cannot be seen, smelled, or tasted. According to the EPA, radon is estimated to cause more than 20,000 lung cancer deaths per year, second only to smoking as the leading cause of lung cancer. An estimated 40 percent of homes in Pennsylvania are believed to have elevated radon levels.

Primary Influential Factors

1. Radon content of the soil
2. Pressure differential between the interior of the home and the soil
3. Air exchange rate for the home
4. Moisture content surrounding the home
5. Presence and size of entry pathways

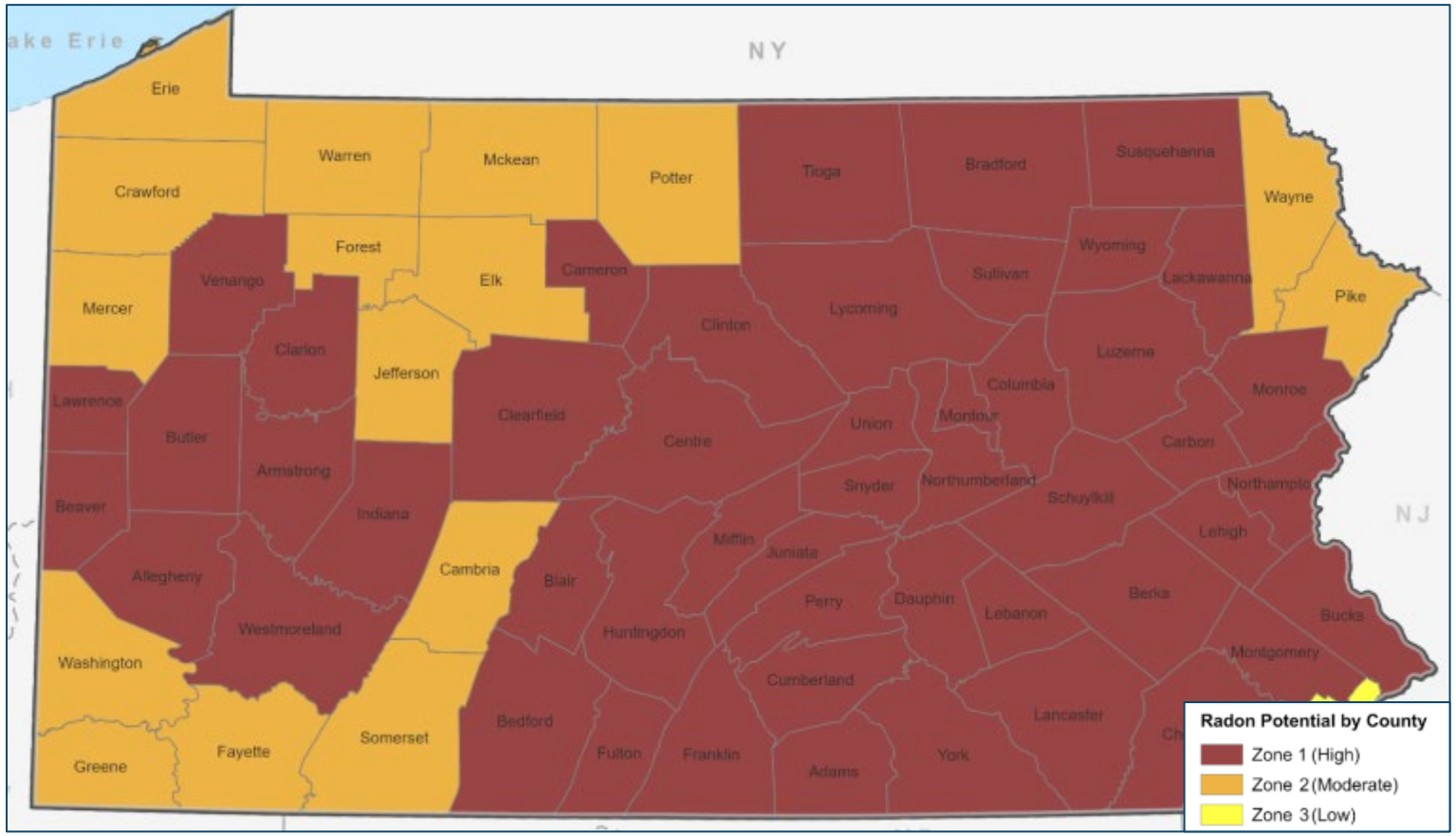
Population Exposed

552,984

The entire County is susceptible

The Pennsylvania Department of Environmental Protection Bureau of Radiation Protection will publish radon testing results if a zip code has had at least 30 tests conducted. The Bureau collected enough radon results from residences in 4 out of 8 zip codes within Lancaster County. For basement tests only, zip code (17601) recorded the highest maximum result (403 pCi/L), with a total recorded number of 13,373 tests. Zip code (17604) recorded the highest average result (10.7 pCi/L), with a total recorded number of 44 tests.

Radon Potential in Lancaster County



Source: PEMA 2023

Subsidence, Sinkhole

Subsidence and sinkholes are common in the Commonwealth. Of particular concern is mine subsidence due to the number of underground coal and clay mines. The karst topography, including limestone bedrock, makes Lancaster County susceptible to subsidence and sinkholes.

Climate Change Impacts

Extended growing seasons, higher temperatures, and the possibility of more intense and less frequent summer rainfall may lead to changes in water availability. Changes to the water balance of an area (including over-withdrawal of groundwater, diverting surface water, and drilling new water wells) will cause sinkholes. These actions can also accelerate the natural processes of bedrock degradation, which can have a direct impact on sinkhole creation.

Number of Buildings Exposed

105,107

Subsidence/Sinkhole Hazard Area

Population Exposed

238,693

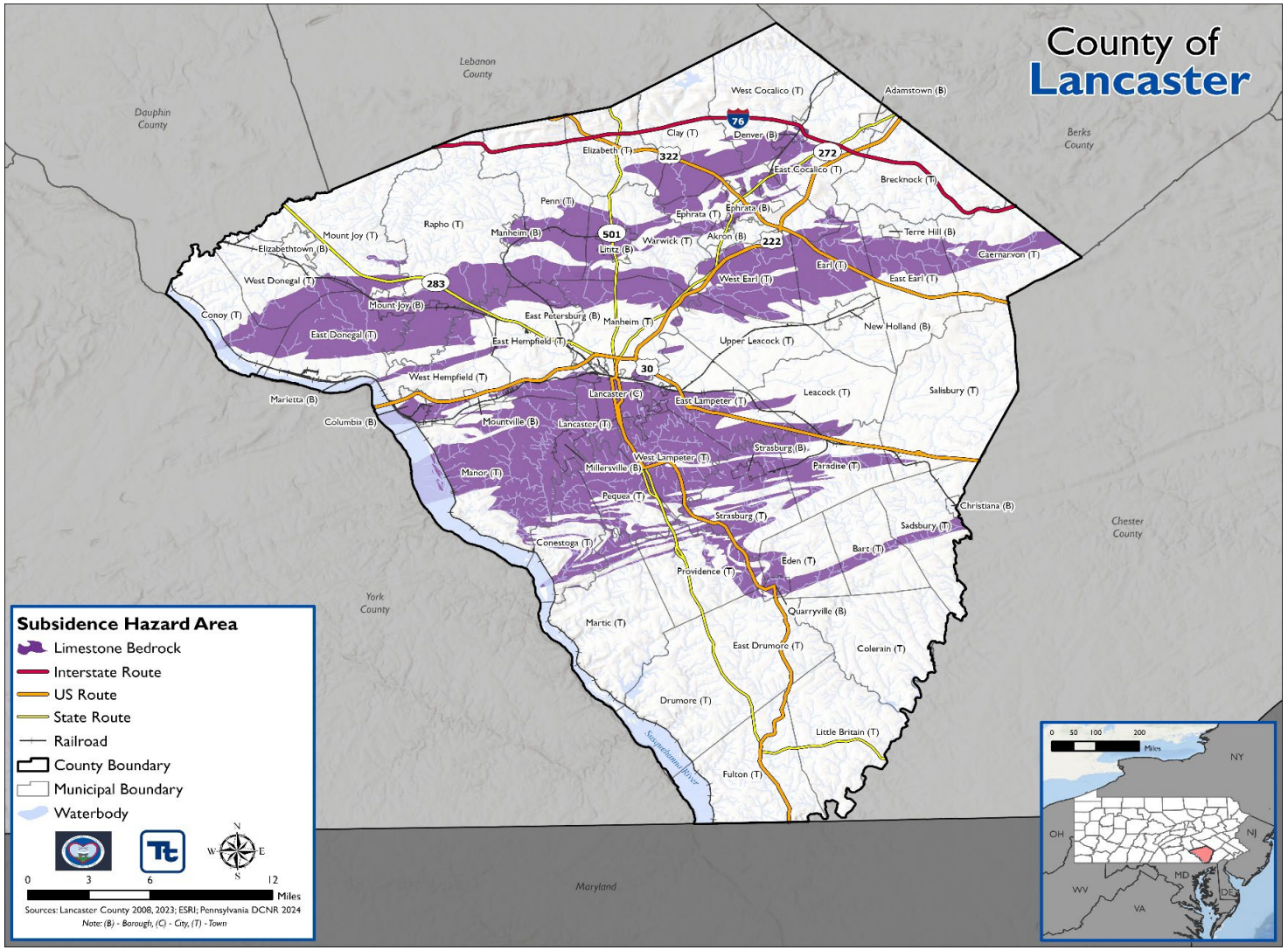
Subsidence/Sinkhole Hazard Area

Building Replacement Cost Value

$191,708,236,807

Subsidence/Sinkhole Hazard Area

Subsidence and Sinkhole Hazard Area in Lancaster County



Tornado, Windstorm

Tornadoes and windstorms can occur throughout Lancaster County, though events are usually localized. It is critical for the community to prepare and be aware of forecasts in their local jurisdictions.

Population Exposed

552,984

The entire County is susceptible

500-Year MRP Event

28	16
Displaced Households	Persons Seeking Shelter

Potential Impacts

- Power Outages
- Traffic Accidents
- Downed Trees
- Property Damage
- Personal Injury / Loss of Life

Debris Production (tons)

60,464	46	253,415
Brick and Wood	Concrete and Steel	Tree

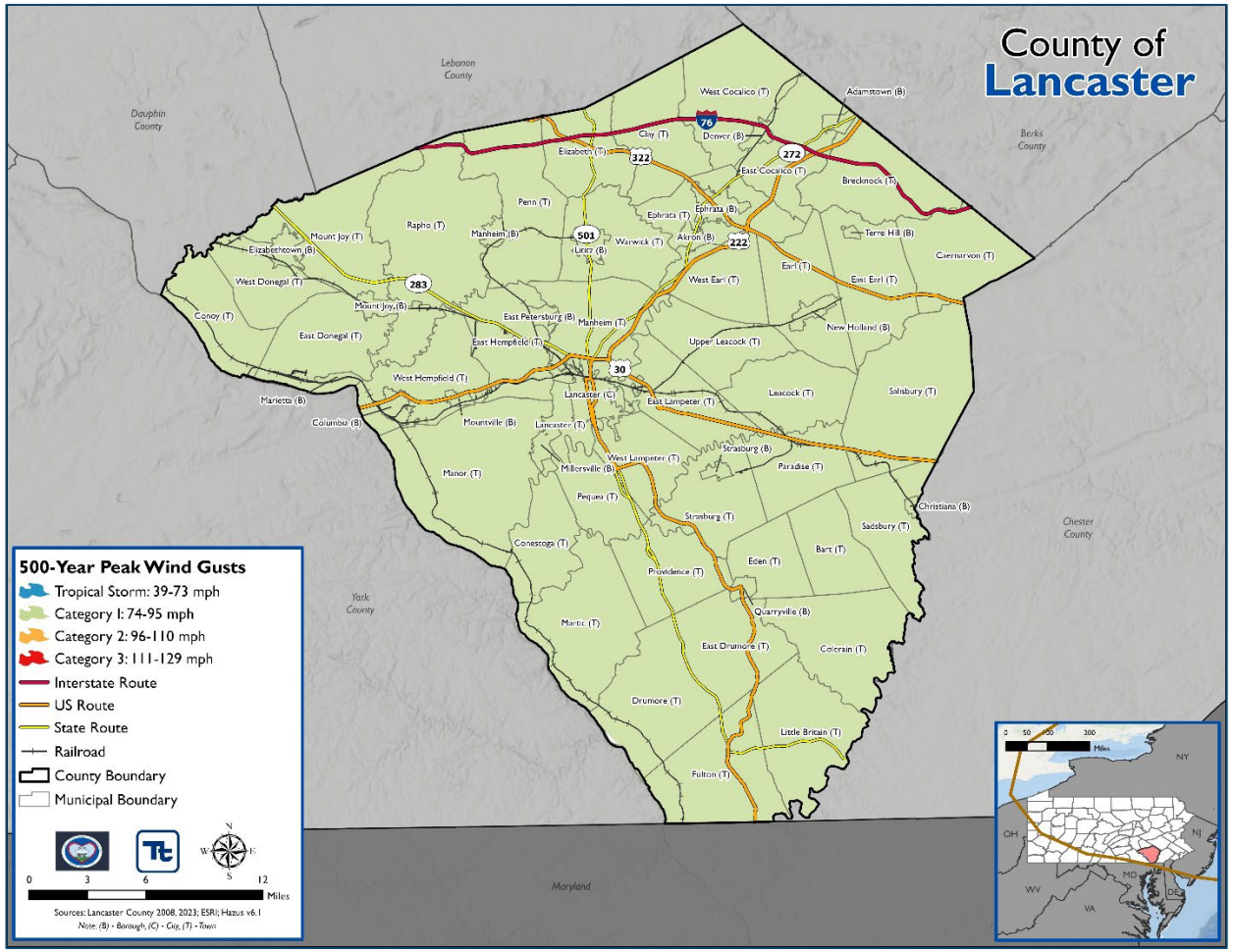
Building Damages from the 500-Year MRP Event

41	352	3,143	14,077
Destruction	Severe Damage	Moderate Damage	Minor Damage

Total Estimated Building Losses from the 500-Year MRP Event

$232,858,929	$181,188,253	$8,074,963	$32,649,738
Residential	Commercial	Industrial	All Other Occupancies

500-Year MRP Peak Wind Gusts in Lancaster County



Transportation Accident

Transportations accidents can occur anywhere in the County at any time. Transportation accidents are defined as incidents involving highway, air, and rail travel, resulting in death, serious injury, extensive property loss or damage or situations that cause delay or closure.

Population Exposed

552,984

The entire County is susceptible

Hazard Types

- Vehicular
- Aviation
- Rail

Miles of Road

Interstate Highway	30.6
Freeways/Expressways	20.0
Principal Arterials	99.7
Minor Arterials	291.2
Major Collectors	456.7
Minor Collectors	234.3
Local Road: State-Owned	143.7
Local Road: Municipal-Owned	2,586.6
Total	**3,896.8**

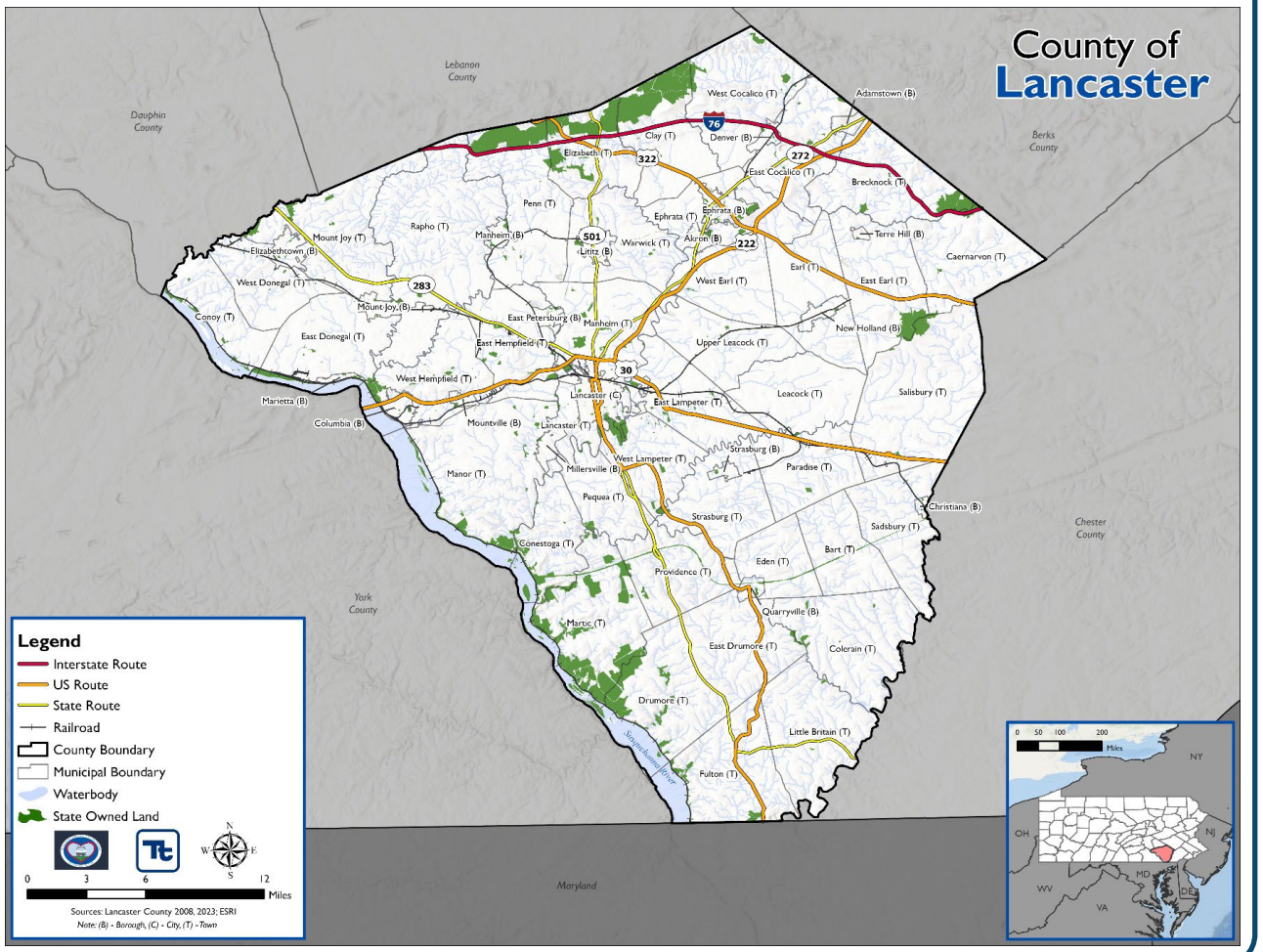
2023 Transportation Fatalities

Vehicle	Aviation	Rail
49	0	0

2023 Transportation Accidents

Vehicle	Aviation	Rail
5,573	3	0

Transportation Routes in Lancaster County



Utility Interruption

Utility interruption can occur anywhere in the County and has the potential to be life-threatening. It is critical for the community to prepare and be aware of forecasts in their local jurisdictions which may result in utility interruptions.

Population Exposed

552,984

The entire County is susceptible

Vulnerable Populations

Utility interruptions most severely affect individuals with access and functional needs (such as children, the elderly, and individuals with special medical needs). Special medical equipment will not function without power.

Climate Change Impacts

The Commonwealth has warmed more rapidly than the national average, and winter is warming faster than other seasons. Evidence shows that hot days are happening more often, and multiday heat waves are expected to occur more often and last longer in the upcoming decades which may impact utilities in the County.

Power Restoration in Lancaster County



Source: WGAL 2014

Cascading Impacts

- Fires
- Temperature-Related Illnesses
- Traffic Accidents
- Loss of Food, Water, and Medical Resources
- Wastewater and Potable Water Utility Interruption

Wildfire

Wildfires can occur at any time of the year but are most likely in Lancaster County during a drought, and can occur in fields, grass, and brush as well as in the forest itself. Under dry conditions or droughts, wildfires have the potential to burn forests as well as croplands. Wildfires can have impacts on critical services, utilities, and properties, and may cause injury.

Population Exposed

27,594

WUI Interface Hazard Area

29,090

WUI Intermix Hazard Area

Number of Buildings Exposed

19,028

WUI Interface Hazard Area

19,801

WUI Intermix Hazard Area

Building Replacement Cost Value

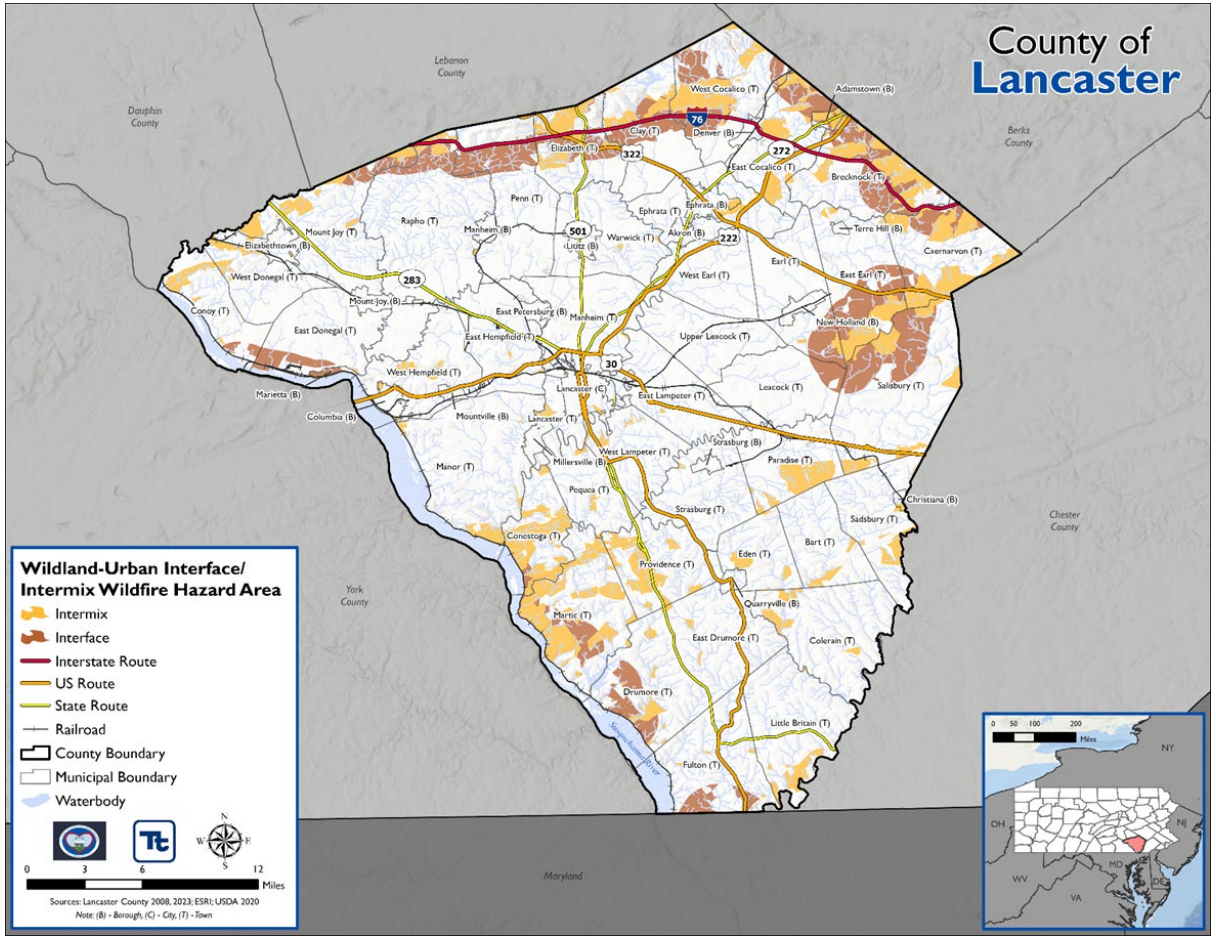
$12,682,104,639

WUI Interface Hazard Area

$12,410,047,128

WUI Intermix Hazard Area

Wildfire Urban Intermix/Interface for Lancaster County



Lifelines Exposed

288

WUI Interface Hazard Area

252

WUI Intermix Hazard Area

Climate Change Impacts

Lancaster County can expect warmer and drier conditions which may increase the frequency and intensity of wildfires. Higher temperatures are expected to increase the amount of moisture that evaporates from land and water. These changes have the potential to lead to more frequent and severe droughts, which, in turn, may increase the likelihood of wildfires.

Winter Weather

Severe winter weather can occur anywhere in Lancaster County and has the potential to be life-threatening. It is critical for the community to prepare and be aware of forecasts in their local jurisdictions.

Population Exposed

552,984

The entire County is susceptible

Buildings Exposed

285,764

The entire County is susceptible

Hazard Types

Heavy Snow	Blizzard	Sleet
Freezing Rain	Ice Storm	Nor'easter

Climate Change Impacts

Snowfall is likely to become less frequent, with the season decreasing in length. As winters continue to warm, ice is projected to become rarer, which may lead to more snow in the short term. Over the long term, however, more of this is likely to fall as rain.

Notable Occurrence

A winter storm in 1993 resulted in reports of nearly 3 feet of snow across Lancaster County. There were two fatalities and an estimated $5 million in property damage.

Plow Truck Clears Road in Lancaster County



Source: LancasterOnline



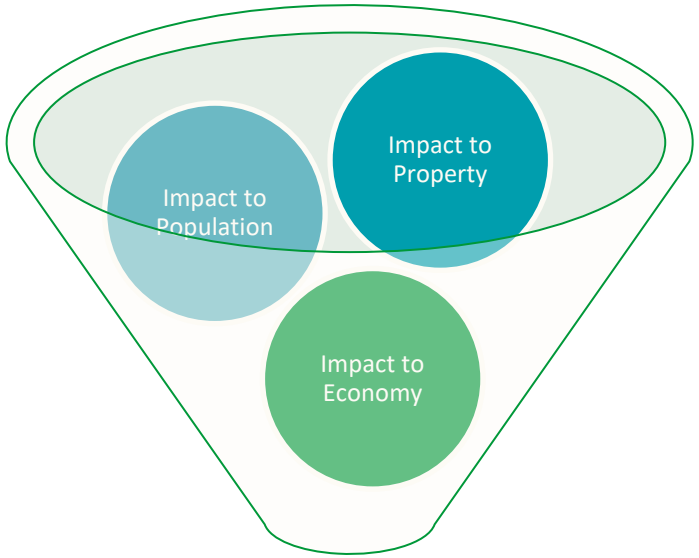
Hazard Rankings

Review the calculated hazard rankings and provide your feedback.

Hazard Ranking Methodology

- The calculated probability of a hazard occurring based on historical data
- *Impacts to people, property, and the economy* based on GIS data and analysis of exposure.
- The degree to which *climate change* will affect future occurrences based on best available data.
- The degree to which existing *capabilities* (the ability of your community to respond to the hazard based on ordinances, mitigation strategies and procedures, and readiness) decrease overall risk.

Hazard Ranking Formula



Probability of Occurrence (30%) + Impacts (30%) + Adaptive Capacity (30%) + Climate Change (10%) → Preliminary Hazard Ranking

Local community input to adjust preliminary rankings

Risk Ranking (County)

High

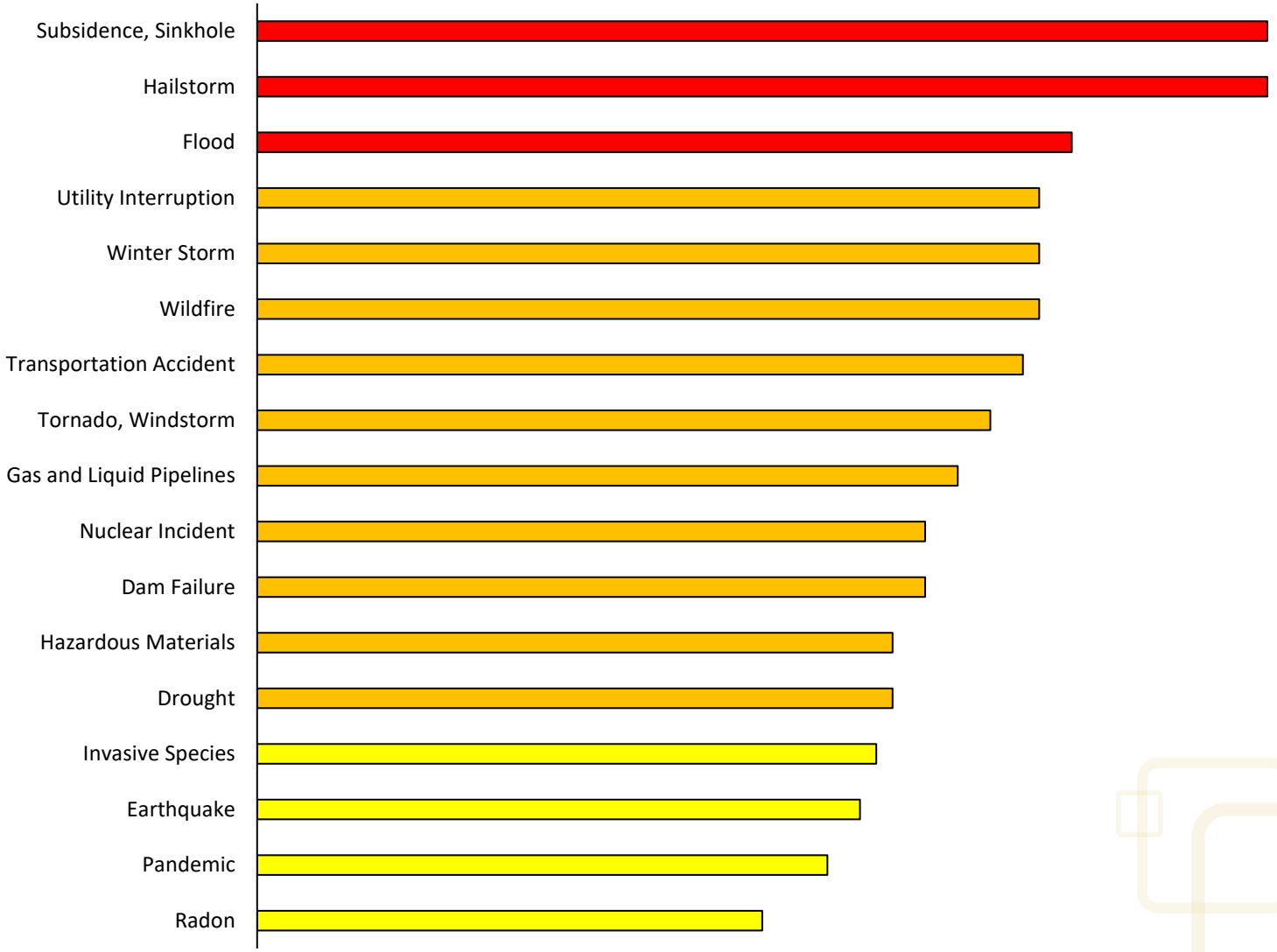
- Subsidence, Sinkhole
- Hailstorm
- Flood

Medium

- Utility Interruption
- Winter Storm
- Transportation Accident
- Tornado, Windstorm
- Gas and Liquid Pipelines
- Nuclear Incident
- Dam Failure
- Hazardous Materials
- Drought

Low

- Invasive Species
- Earthquake
- Pandemic
- Radon Exposure





Review Rankings

Review Rankings

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com) by Friday, November 1

Jurisdiction: _____

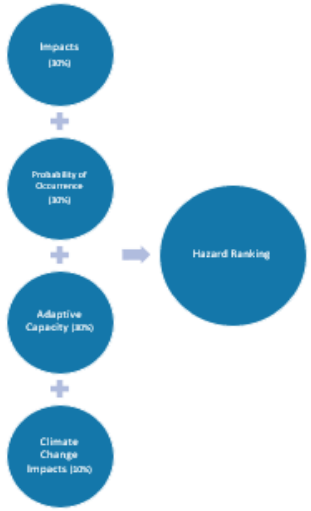
Name/Title of Individual Completing Worksheet: _____

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. The calculated probability of a hazard occurring based on historical data.
2. Impacts to people, property, and the economy based on GIS data and analysis of exposure.
3. The degree to which climate change will affect future occurrences based on best available data.
4. Adaptive Capacity, which is the ability your community has to respond to the hazard based on ordinances, mitigation strategies and procedures, and readiness.



What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for your community. Please review the calculated rankings and indicate whether or not you want to adjust the ranking. If you are changing the ranking, please provide detail as to why you are changing the ranking.

REMEMBER, for every hazard of concern, you need at least one mitigation action.

Continued on next page.

Lancaster County | Hazard Mitigation Plan 2025 Update
Preliminary Hazard Ranking Review

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Dam Failure	Medium		
Drought	Medium		
Earthquake	Low		
Environmental Hazards: Gas and Pipeline	Medium		
Environmental Hazards: Hazardous Materials	Medium		
Flood, Flash Flood, Ice Jam	High		
Hailstorm	High		
Invasive Species	Low		
Nuclear Incident	Medium		
Pandemic and Infectious Disease	Low		
Radon Exposure	Low		
Subsidence, Sinkhole	High		
Tornado, Windstorm	Medium		
Transportation Accident	Medium		
Utility Interruption	Medium		
Wildfire	Medium		
Winter Storm	Medium		

Lancaster County | Hazard Mitigation Plan 2025 Update
Preliminary Hazard Ranking Review

What is Adaptive Capacity?

Adaptive capacity describes a jurisdiction's current ability to protect from or withstand a hazard event.

- **Weak** adaptive capacity means the jurisdiction does not have the capability to effectively respond, which leads to an increase in vulnerability. Examples include weak/outdated/inconsistent plans, policies, codes/ordinances in place; no redundancies; limited to no deployable resources; limited capabilities to respond; long recovery.
- **Moderate** adaptive capacity means minimum requirements are in place; moderate capabilities; mitigation measures are identified but not implemented widespread; jurisdiction can recover but needs outside resources.
- **Strong** adaptive capacity means the jurisdiction does have the capability to effectively respond, plans/policies exceed minimum requirements; deployable resources all of which decreases vulnerability.

Table 2. Adaptive Capacity

Hazard	Preliminary Ranking	What should we indicate for your community's adaptive capacity for each hazard?
Dam Failure	Moderate	
Drought	Moderate	
Earthquake	Moderate	
Environmental Hazards:	Moderate	
Gas and Pipeline	Moderate	
Environmental Hazards: Hazardous Materials	Moderate	
Flood, Flash Flood, Ice Jam	Moderate	
Hailstorm	Moderate	
Invasive Species	Moderate	
Nuclear Incident	Moderate	
Pandemic and Infectious Disease	Moderate	
Radon Exposure	Moderate	
Subsidence, Sinkhole	Moderate	
Tornado, Windstorm	Moderate	
Transportation Accident	Moderate	
Utility Interruption	Moderate	
Wildfire	Moderate	
Winter Storm	Moderate	

*Note: *Adaptive capacity was assumed Moderate for all hazards.*

Next Steps

- Continue public outreach efforts via social media, in-person events and meetings, and through other contacts
- Mitigation Strategy Workshop with Steering Committee is TBD



Questions?



Lancaster County Project Contact

Brooke Bowman | Community Resilience Coordinator
(717) 664-1340| brbowman@lancastercountypa.gov

Tetra Tech Project Contact

Jessica Stokes, MSEM, NJCEM | Project Manager
(973) 630-8017 | jessica.stokes@tetratech.com

Thank You!

LANCASTER COUNTY HAZARD MITIGATION PLAN UPDATE
Steering Committee Mitigation Strategy Workshop – AGENDA
MEETING DATE/TIME: Wednesday, December 4 – 3:30 pm to 5:30 pm

In-Person
Lancaster County Public Safety Training Facility
(101 Champ Blvd., Manheim, PA 17545)

Virtual via Microsoft Teams
Join the meeting by clicking here
Meeting ID: 231 444 255 291
Passcode: nE6Rd6ib

Dial in by phone
+1 213-357-2812
Phone conference ID: 420 414 035#

- **Welcome and Introductions**
- **Project Status**
  - Project schedule
  - Public outreach
- **Identifying and Developing Mitigation Strategies**
- **Review Previous Actions**
- **Developing New Potential Actions**
- **Next Steps**
  - Continue developing actions and work with Tetra Tech staff to complete outstanding worksheets prior to leaving today
- **Questions/Discussion**
- **Workshop**
  - Work with the Tetra Tech staff to develop mitigation strategies and complete outstanding worksheets

Lancaster County Project Contact
Brooke Goodling, Community Resilience Coordinator
Lancaster County Emergency Management
(717) 664-1340 | bgoodling@lancastercountypa.gov

Tetra Tech Project Contact
Jessica Stokes, MSEM, NJCEM
Tetra Tech, Inc.
(973) 630-8017 | jessica.stokes@tetratech.com

Lancaster County, PA – Hazard Mitigation Plan 2025 Update
Steering Committee Mitigation Strategy Workshop | Meeting Minutes

Purpose of Meeting:	Steering Committee Risk Assessment Meeting
Location of Meeting:	In-Person @ Lancaster County Public Safety Training Facility (101 Champ Blvd., Manheim, PA 17545) OR virtual via Microsoft Teams
Date of Meeting:	December 4, 2024 @ 3:30 P.M.

Attendees:

- **Lancaster County Emergency Management Agency**
  - Ben Herskowitz, Deputy Director
  - Brooke Bowman, Community Resilience Coordinator & Volunteer Liaison
  - Brett Fassnacht, Training & Exercise Coordinator
- **Lancaster County Planning Department**
  - Sharon Cino, Senior Planner
- **Well Span Health**
  - Kimberly Stonebraker, Emergency Manager
- **Lancaster County Conservation District (virtual attendee)**
  - Chris Thompson, District Manager
- **East Cocalico Water and Sewer Authority**
  - Mike Galley, Compliance Manager
- **East Petersburg Borough**
  - Violet DeStefano, Emergency Management Coordinator
- **Eden Township**
  - Jason Skonberg, Deputy Emergency Management Coordinator
- **Ephrata Borough**
  - Randy Gockley, Emergency Management Coordinator
- **Lancaster City**
  - Chris DeLong, Deputy Chief, Lancaster City Bureau of Fire; Emergency Management Coordinator
- **Lancaster Township**
  - Brett Fassnacht, Emergency Management Coordinator
  - Gene Duncan, Assistant Emergency Management Coordinator
- **Lititz Borough (virtual attendee)**
  - Duane Ober, Emergency Management
- **Mount Joy Borough (virtual attendee)**
  - Philip Colvin, Emergency Management Coordinator
- **Rapho Township**
  - Lori Shenk, Emergency Management Coordinator
- **Manheim Township School District**
  - Dale Reimann, Assistant Superintendent
- **Tetra Tech**
  - Jessica Stokes, Project Manager
  - Emily Vassallo, Lead Planner

Agenda Summary: The purpose of the meeting was to describe the contains within the mitigation strategy, provide an opportunity for jurisdictions to review their previous mitigation actions, complete outstanding worksheets with assistance from Tetra Tech planners, discuss what makes a good mitigation action, and identify potential 2025 mitigation actions.

Item No.	Description	Action item(s):
1	**Introductions**	-

2	**Project Status**
	• Municipal Participation Status
	• Public Outreach and Engagement
	  ○ Post links on social media and department/agency websites
	  ○ Stakeholder and neighboring municipalities surveys have been distributed
	  ○ Make efforts to reach out to:
	  ▪ General Public
	  ▪ Stakeholders
	  ▪ Neighbors
		Tetra Tech
		• Send Draft to County after it's through editorial (Next Week)
		
		Steering Committee
		• Continue posting about the HMP update. J. Stokes has sent materials to post.

3	**Identifying and Developing Mitigation Strategies** • The **Mitigation Strategy** is the County's roadmap to reduce the risk of hazards identified in the HMP. The strategy is based on hazard impacts, asset vulnerability, and the County's capabilities. • **Mitigation Actions** are specific activities, such as policies, projects, and studies, that stakeholders identify to reduce risk. ○ Forward-looking and incorporate changing conditions for the life of the County's assets	**Tetra Tech** • Work with municipalities to develop new actions **Steering Committee** • Develop new actions

	○ Consider changing demographics, development patterns, impacts of climate change. ○ Examples of actions may include elevating electrical and HVAC equipment to reduce the likelihood of damage from floodwaters or planting trees to lower temperatures exacerbated by pavement. • What is a ***Mitigation Strategy***? ○ A group of projects or actions to reduce the impacts of the hazards of concern on your community ▪ Plans and Regulations ▪ Structure and Infrastructure Studies and Projects ▪ Natural Systems Protection Studies and Projects ▪ Education and Awareness Programs • Terms to describe the *Mitigation Strategy* include: ○ **Mitigation Action Plan** or **Action Plan** ○ **Mitigation Projects** or **Initiatives** or **Actions** • Need a clear connection between vulnerabilities identified in the risk assessment and proposed mitigation actions. • The capability assessment can provide insight into challenges and opportunities for the mitigation strategy. ▪ All actions proposed in the mitigation strategy must have a factual basis tied to the results of the risk and capability assessments (*this shouldn't be a wish list*!)	
4	**2025 Goals** • Prevent injury/death and damage from natural and human caused hazards in Lancaster County • Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards • Improves emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards • Increase public education and awareness of existing and potential hazards in Lancaster County • Reduce the risk of natural hazards for socially vulnerable populations and underserved communities • Address long term vulnerabilities from High Hazard Dams	**Tetra Tech** • Check FEMA language for "Socially Vulnerable Populations" and edit 5th goal based on that • Potentially add critical facilities/lifelines into goal 2
5	**Review Previous Actions** • Review the mitigation actions your jurisdiction identified in the previous HMP by providing a brief status narrative. Begin by providing the status headings below and then add details (what has been accomplished, what funding was used, anything holding back progress): ○ IN PROGRESS: Started but not complete ○ ONGOING CAPABILITY: An action you now complete on a regular basis (maintenance, annual outreach, etc.). These actions will be included in your capabilities moving forward. ○ NO PROGRESS: Not started ○ COMPLETE: Finished! ▪ Actions that are COMPLETE or ONGOING will not be carried forward.	**Tetra Tech** • Work with municipalities to provide update on actions **Steering Committee** • Provide update on action status
6	**Developing New Potential Actions** • Quality not quantity	**Tetra Tech**

	1. Each action needs detailed information on the why, who, what, and when of the action. • 2021 projects 1. If a project is not finished and still a priority, include in 2025 HMP 2. Remove general projects or make more specific 3. Remove ongoing capabilities like maintenance or annual outreach • **Each hazard needs at least one mitigation action** • If your jurisdiction has Repetitive Loss Properties - an action is needed to mitigate the properties (elevation or acquisition) with specifics (street or neighborhood names, not specific addresses) • Four types of Mitigation Actions 1. Plans and regulations 2. Structure and Infrastructure 3. Natural systems protection ○ Education and awareness	• Develop actions, including RL/SRL and HHPD actions **Steering Committee** • Provide the who, what, where, when and why to potential action projects
7	**Next Steps** • Share information about the HMP Update via social media, community groups, and networks • Submit all outstanding worksheets to Tetra Tech by January 3, 2025; try to submit on December 20 if possible.	**Steering Committee** • Planning Department is willing to work with jurisdictions to get worksheets in by Dec 20th/Jan 3rd.
8	**Questions/Discussion** • Lori Shenk: Does there need to be an action for every hazard of concern? a. Jessica Stokes: The County will likely cover this requirement through their own actions. The local jurisdictions should focus on identifying and including actions they'd like to seek Mitigation Grant funding for.	-

Lancaster County 2025 Hazard Mitigation Plan
Topic: Mitigation Strategy Workshop – Hazard Mitigation Plan Update
Location: Lancaster County Public Safety Training Center
Date: December 4, 2024
Time: 3:30 PM – 5:30 PM

Name	Title	Jurisdiction	Email	Phone Number
Jessica Stokes	Project Manager	Tetra Tech	jessica.stokes@tetratech.com	973-630-8017
Emily Vassallo	Lead Planner	Tetra Tech	emily.vassallo@tetratech.com	717-839-5655
JASON SKAUBERG	DEPUTY EMC	EDEN TWP EMA	EDENTWPEMC@COMCAST.NET	717-575-4627
MIKE GALLEY	COMPLIANCE MGR	EAST COCALICO TWP AUTHORITY	MGALLEY@ecocalicotwpauth.com	717-336-1731
Sharon Cino	Senior Planner	LCPD	Shcino@lancastercountypa.gov	717-299-8333
Dale Reimann	Assistant Superintendent	Manheim Township S.D.	reimannd@mtsp.net	717 519 8321
Ben Hershowitz	DEP DIR	LDNC DPS		717 664 1206

Lancaster County 2025 Hazard Mitigation Plan
Topic: Mitigation Strategy Workshop – Hazard Mitigation Plan Update
Location: Lancaster County Public Safety Training Center
Date: December 4, 2024
Time: 3:30 PM – 5:30 PM

Name	Title	Jurisdiction	Email	Phone Number
BRETT FASSNACHT	EMC	LANCASTER TOWNSHIP	BRETT. FASSNACHT @ LTFD. ORG	717 823-0189
Brooke Goodling	community Resilience Coord.	Lancaster DPS	bgoodling@lancastercountypa.gov	717 664 1340
Randy Gockley	EMC	Ephrata Borough	randygockley560 gmail.com	717-466-9050
Lori Shenk	EMC	Rapho Twp	lshenk@degazzi.com	7173718282
Gene Duncan	EMA	LANC Township	GDuncan520@aol.	7172786906
Chris DeLong	City EMC	City of Lancaster	cdelong@cityoflancasterpa.gov	717-740-0588
Violet DeStefano	EMC	EAST PETE BORO	vdestefano@eastpetersburgborough.org	312-292-0199
Kim Stonebraker	EMC Wellspan	Wellspan Hosp.	kstonebraker5@wellspan.org	717 615 62163



TETRA TECH

County of Lancaster ~ Pennsylvania ~ Founded May 10, 1729

Lancaster County Hazard Mitigation Plan 2025 Update

Steering Committee Mitigation Strategy Workshop

December 4, 2024



Today's Agenda

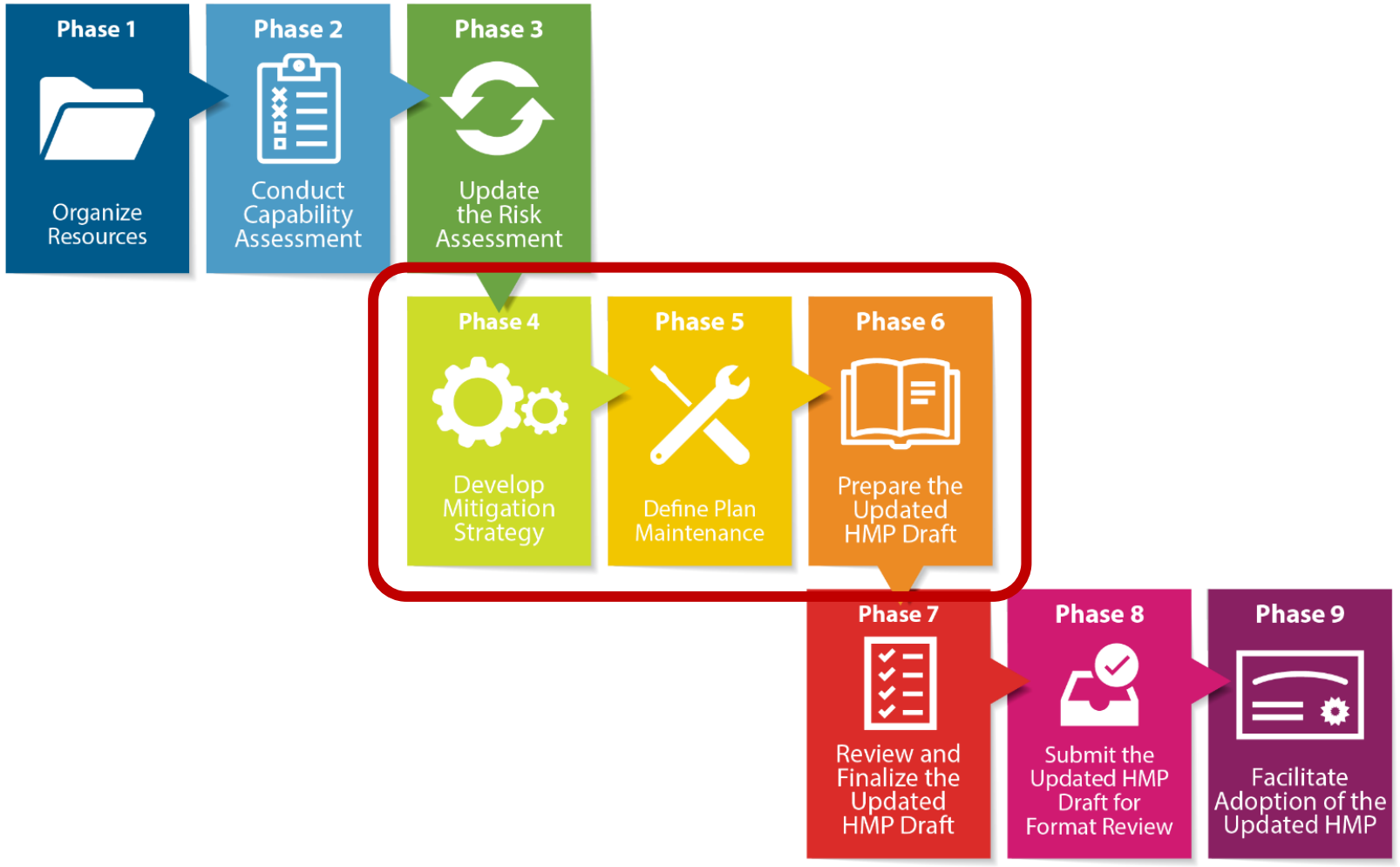
1. Welcome and Introductions
2. Project Status
3. Identifying and Developing Mitigation Strategies
4. Developing New Potential Actions
5. Next Steps
6. Questions/Discussion
7. Workshop





Project Status

Planning Process



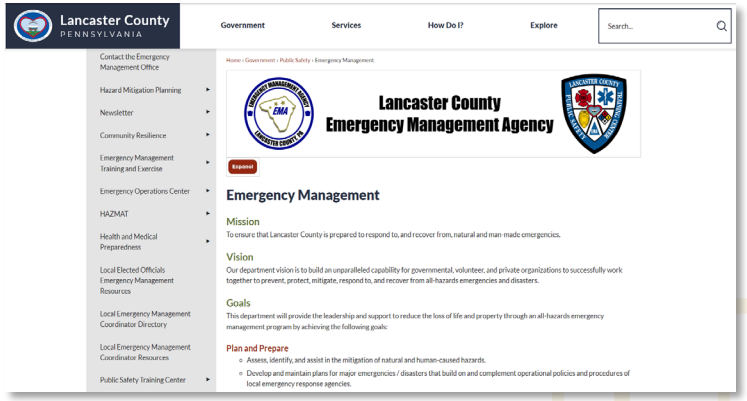
Public Outreach

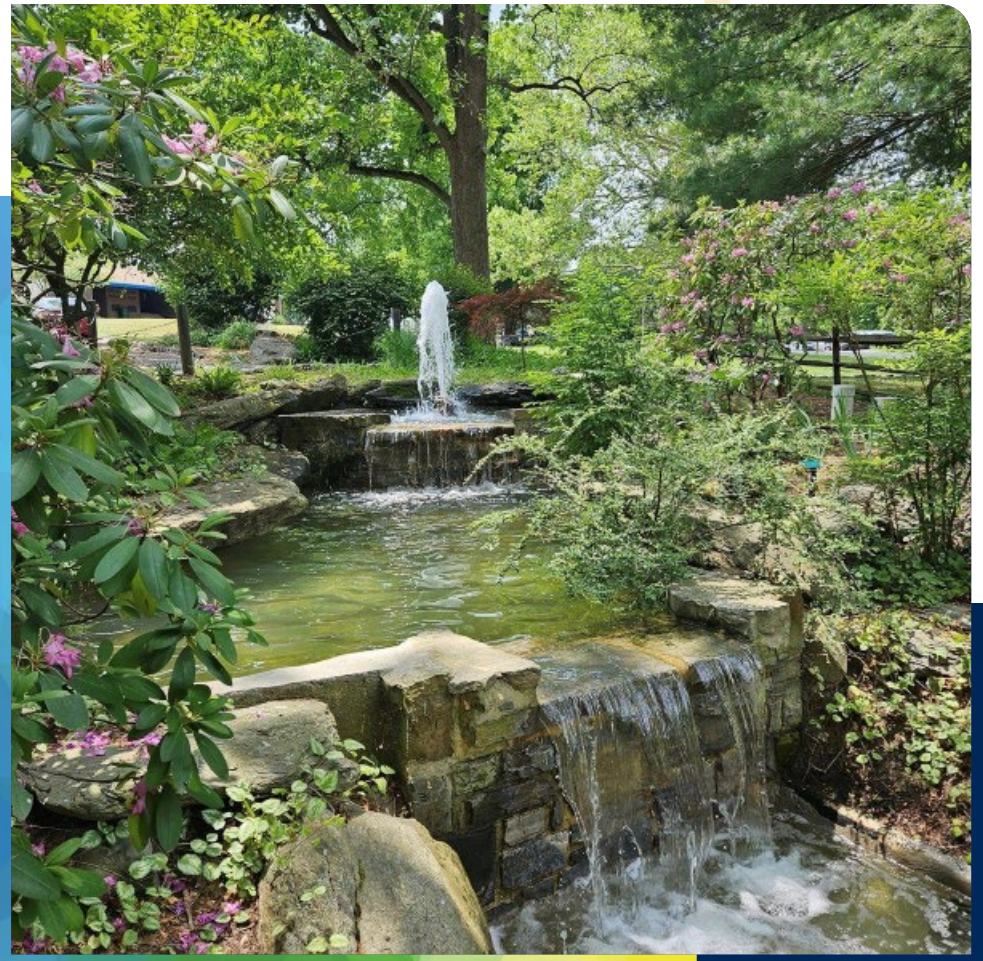
- Public Outreach Toolkit
  - Social media templates and posts
  - Press release templates
  - Printable materials
- Surveys
  - Stakeholders – 15
  - Neighboring communities – 5
  - Public – 67
- County Website











Identifying and Developing Mitigation Strategies

Using Your Mitigation Strategy to Reduce Risk

- What is a ***Mitigation Strategy***?
  - A group of projects or actions to reduce the impacts of the hazards of concern on your community
    - — Plans and Regulations
    - — Structure and Infrastructure Studies and Projects
    - — Natural Systems Protection Studies and Projects
    - — Education and Awareness Programs
- Terms to describe the *Mitigation Strategy* include:
  - **Mitigation Action Plan** or **Action Plan**
  - **Mitigation Projects** or **Initiatives** or **Actions**

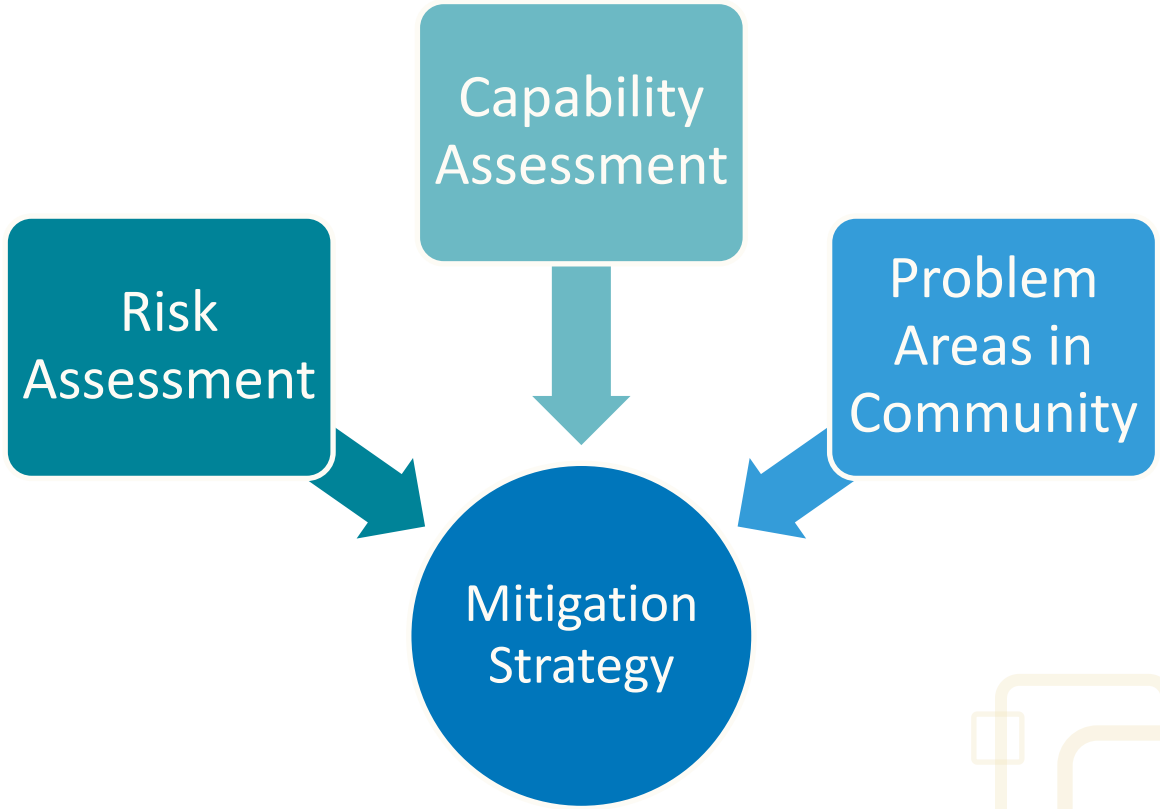
Your Mitigation Strategy is included in your annex. Each action will be developed on individual Action Worksheets to include detailed information that can serve as starting points for grant applications and guide implementation

Purpose of Mitigation Strategy

- The **Mitigation Strategy** is the County's roadmap to reduce the risk of hazards identified in the HMP. The strategy is based on hazard impacts, asset vulnerability, and the County's capabilities.
- **Mitigation Actions** are specific activities, such as policies, projects, and studies, that stakeholders identify to reduce risk.
  - Forward-looking and incorporate changing conditions for the life of the County's assets
  - Consider changing demographics, development patterns, impacts of climate change.
  - Examples of actions may include elevating electrical and HVAC equipment to reduce the likelihood of damage from floodwaters or planting trees to lower temperatures exacerbated by pavement.
  - ***Actions included in the plan are eligible for certain types of FEMA funding.***

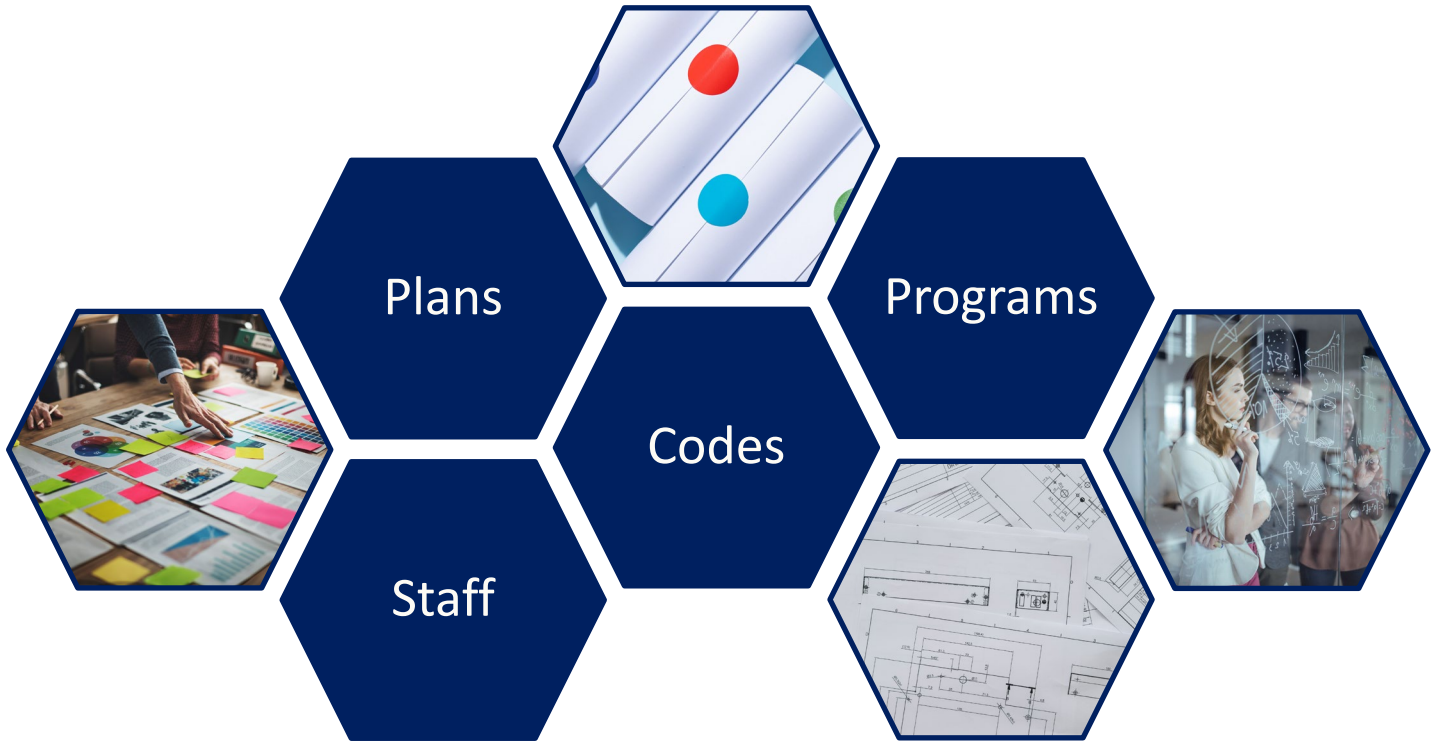
Connecting to the Mitigation Strategy

- Need a clear connection between vulnerabilities identified in the risk assessment and proposed mitigation actions.
- The capability assessment can provide insight into challenges and opportunities for the mitigation strategy.
- All actions proposed in the mitigation strategy must have a factual basis tied to hazards (*this shouldn't be a wish list*!)



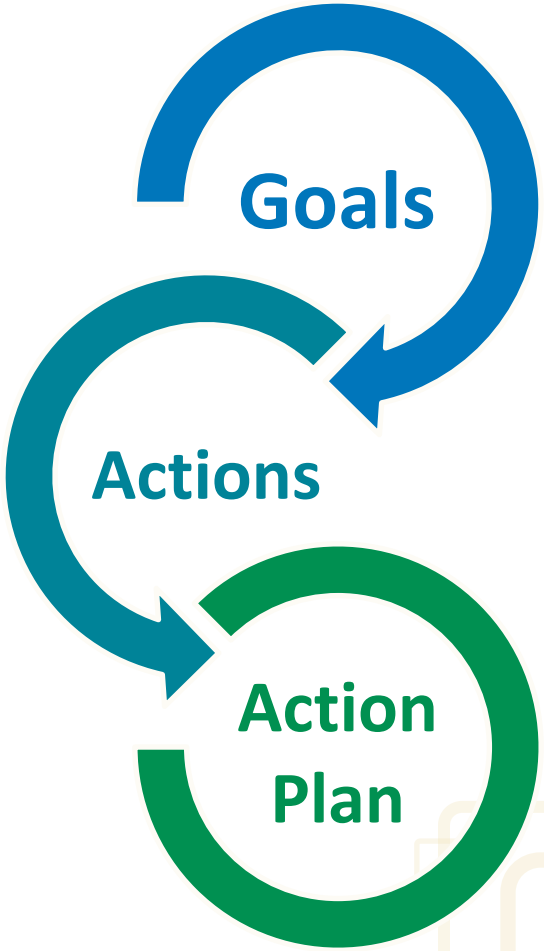
Capability Assessment

- Capabilities
  - What does your jurisdiction use to reduce risk to hazards?



Mitigation Strategy

- Goals
  - What outcomes do you want to achieve?
- Actions
  - What specific actions will be taken to reduce hazard risk?
- Action Plan
  - How will the actions be prioritized and implemented?



2025 HMP Goals

	Goal
1	Prevent injury/death and damage from natural and human-caused hazards in Lancaster County.
2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.
3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.
4	Increase public education and awareness of existing and potential hazards in Lancaster County.
5	Reduce the risk of natural and human-caused hazards for socially vulnerable populations.
6	Address long-term vulnerabilities from High Hazard Dams.



Developing New Potential Actions

Requirements for the Mitigation Strategy Update

- Quality not quantity
  - Each action needs detailed information on the why, who, what, and when of the action.
- Previous projects
  - If a project is not finished and still a priority, include in 2025 HMP
  - Remove general projects or make more specific
  - Remove ongoing capabilities like maintenance or annual outreach
- **Each hazard needs at least one mitigation action**
- If your jurisdiction has Repetitive Loss Properties - an action is needed to mitigate the properties (elevation or acquisition) with specifics (street or neighborhood names, not specific addresses)

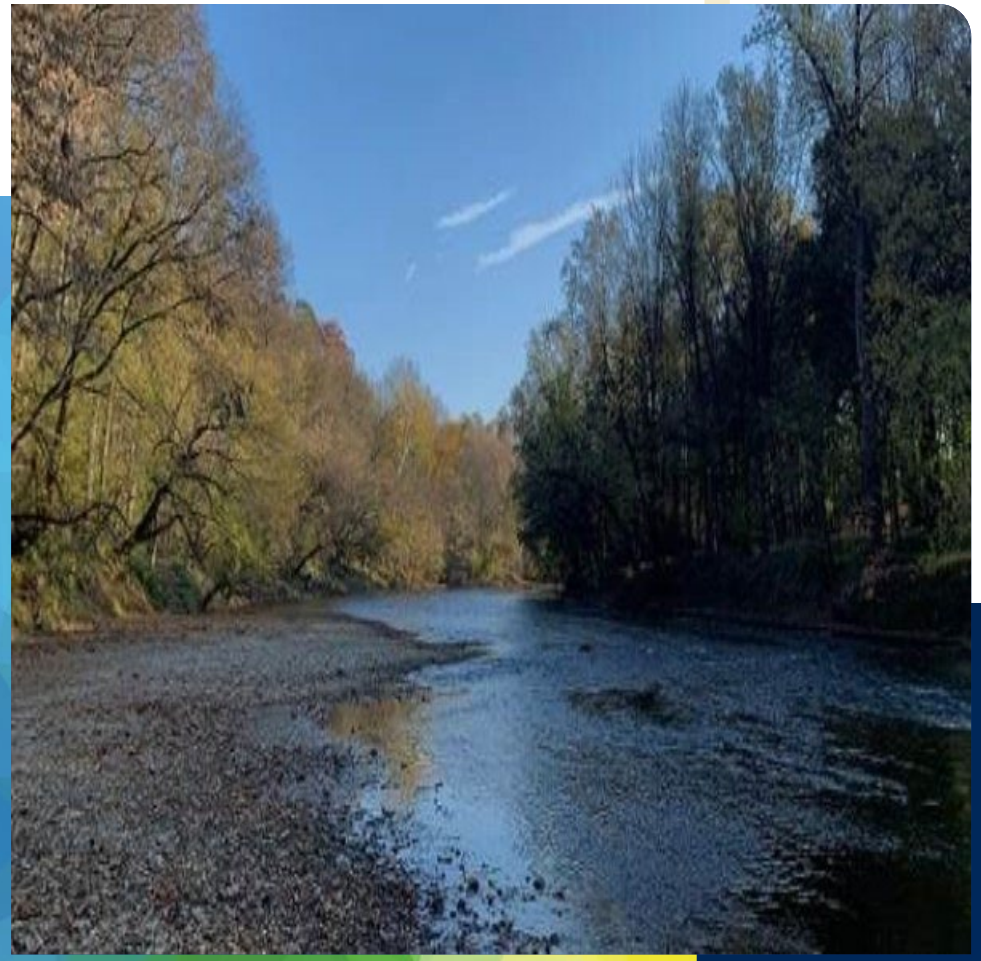
Where do you need to focus?

- **Stronger connection** between the risk assessment and mitigation strategy
- **More specific, achievable actions**
  - Specific projects, in specific locations, in a specific timeframe
  - Focus on socially vulnerable populations and underserved communities
- **Diverse actions**
  - You need at least **one action per hazard of concern**. Think about actions that can cover multiple hazards.
  - Include a variety of action types (e.g., plans, floodproof critical facilities, outreach programs, etc.)

Other Mitigation Actions to Consider



- Substantial Damage Management Plan
- Actions to address high-hazard or significant-hazard dams
- Public education and outreach programs
- Generators at critical facilities and community lifelines
- Floodproofing critical facilities and community lifelines
- Addressing repetitive and severe repetitive loss properties



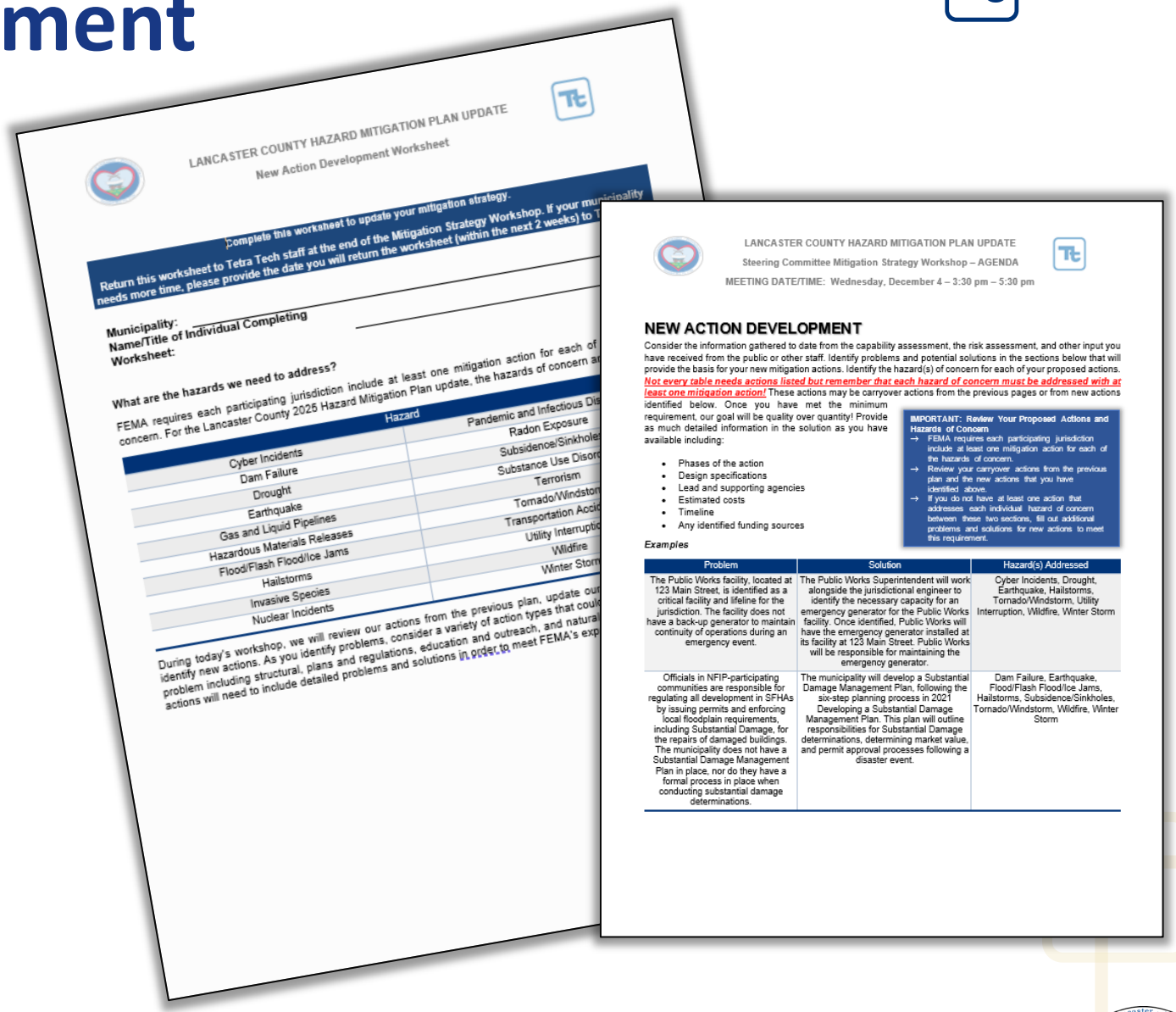
Workshop

Review previous mitigation actions, identify new actions, complete any additional outstanding worksheets.

Before you leave, check in with Tetra Tech staff!

New Action Development

- Consider information gathered to date from the capability assessment, risk assessment, and other input received from the public or other staff.
- Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions.
- Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!



LANCASTER COUNTY HAZARD MITIGATION PLAN UPDATE

New Action Development Worksheet

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to T

Municipality:

Name/Title of Individual Completing Worksheet:

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern a

Hazard	
Cyber Incidents	Pandemic and Infectious Dis
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkhole
Earthquake	Substance Use Disor
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accid
Hailstorms	Utility Interruptio
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our identify new actions. As you identify problems, consider a variety of action types that could problem including structural, plans and regulations, education and outreach, and natural actions will need to include detailed problems and solutions in order to meet FEMA's exp

LANCASTER COUNTY HAZARD MITIGATION PLAN UPDATE

Steering Committee Mitigation Strategy Workshop – AGENDA

MEETING DATE/TIME: Wednesday, December 4 – 3:30 pm – 5:30 pm

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. *Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!* These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

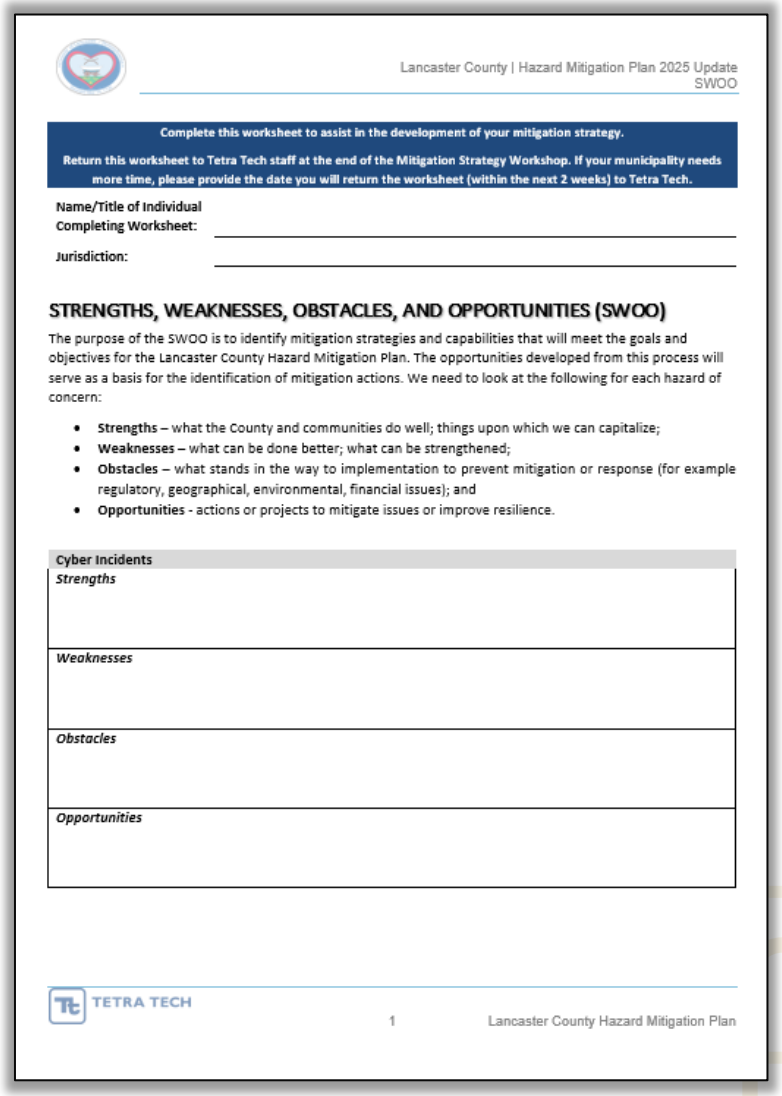
→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Strengths, Weaknesses, Obstacles, and Opportunities (SWOO)

- The purpose of the SWOO is to identify mitigation strategies and capabilities that will meet the goals and objectives for the Lancaster County Hazard Mitigation Plan. The opportunities developed from this process will serve as a basis for the identification of mitigation actions. We need to look at the following for each hazard of concern:
  - Strengths – what the County and communities do well; things upon which we can capitalize;
  - Weaknesses – what can be done better; what can be strengthened;
  - Obstacles – what stands in the way to implementation to prevent mitigation or response (for example regulatory, geographical, environmental, financial issues); and
  - Opportunities - actions or projects to mitigate issues or improve resilience.
- Return this sheet to a Tetra Tech employee at the end of today's meetings.



Lancaster County | Hazard Mitigation Plan 2025 Update
SWOO

Complete this worksheet to assist in the development of your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Name/Title of Individual Completing Worksheet: _____

Jurisdiction: _____

STRENGTHS, WEAKNESSES, OBSTACLES, AND OPPORTUNITIES (SWOO)

The purpose of the SWOO is to identify mitigation strategies and capabilities that will meet the goals and objectives for the Lancaster County Hazard Mitigation Plan. The opportunities developed from this process will serve as a basis for the identification of mitigation actions. We need to look at the following for each hazard of concern:

- **Strengths** – what the County and communities do well; things upon which we can capitalize;
- **Weaknesses** – what can be done better; what can be strengthened;
- **Obstacles** – what stands in the way to implementation to prevent mitigation or response (for example regulatory, geographical, environmental, financial issues); and
- **Opportunities** - actions or projects to mitigate issues or improve resilience.

Cyber Incidents
Strengths
Weaknesses
Obstacles
Opportunities

TETRA TECH 1 Lancaster County Hazard Mitigation Plan

Next Steps

- Complete your worksheets, ask questions, and provide information to Tetra Tech and Lancaster County staff.
- Continue to share information about the HMP Update via social media, community groups, and networks. Let us know who you share information with!



Questions?



Lancaster County Project Contact

Brooke Goodling | Community Resilience Coordinator
(717) 664-1340| bgoodling@lancastercountypa.gov

Tetra Tech Project Contact

Jessica Stokes, MSEM, NJCEM | Project Manager
(973) 630-8017 | jessica.stokes@tetratech.com

Thank You!

Types of Mitigation Actions

A mitigation action is a specific action, project, activity, or process taken to reduce or eliminate long-term risk to people and property from hazards and their impacts. Implementing mitigation actions helps achieve the plan's mission and goals. The actions to reduce vulnerability to threats and hazards form the core of the plan and are a key outcome of the planning process.

The primary types of mitigation actions to reduce long-term vulnerability are:

- Local Plans and Regulations (LPR)
- Structure and Infrastructure Projects (SIP)
- Natural Systems Protection (NSP)
- Education and Awareness Programs (EAP)

Mitigation Type	Description	Examples
Local Plans and Regulations	These actions include government authorities, policies, or codes that influence the way land and buildings are developed and built.	▪ Comprehensive plans ▪ Land use ordinances ▪ Subdivision regulations ▪ Development review ▪ Building codes and enforcement ▪ NFIP Community Rating System ▪ Capital improvement programs ▪ Open space preservation ▪ Stormwater management regulations and master plans
Structure and Infrastructure Projects	These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct manmade structures to reduce the impact of hazards. Many of these types of actions are projects eligible for funding through the FEMA Hazard Mitigation Assistance program.	▪ Acquisitions and elevations of structures in flood prone areas ▪ Utility undergrounding ▪ Structural retrofits ▪ Floodwalls and retaining walls ▪ Detention and retention structures ▪ Culverts ▪ Safe rooms
Natural Systems Protection	These are actions that minimize damage and losses and also preserve or restore the functions of natural systems.	▪ Sediment and erosion control ▪ Stream corridor restoration ▪ Forest management ▪ Conservation easements ▪ Wetland restoration and preservation
Education and Awareness Programs	These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady or Firewise Communities. Although this type of mitigation reduces risk less directly than structural projects or regulation, it is an important foundation. A greater understanding and awareness of hazards and risk among local officials, stakeholders, and the public is more likely to lead to direct actions.	▪ Radio or television spots ▪ Websites with maps and information ▪ Real estate disclosure ▪ Presentations to school groups or neighborhood organizations ▪ Mailings to residents in hazard-prone areas ▪ StormReady ▪ Firewise Communities

DAM FAILURE		
Personal Scale	**Corporate Scale**	**Government Scale**

• ***Manipulate the hazard:***
  ○ None
• ***Reduce exposure to the hazard:***
  ○ Relocate out of dam failure inundation areas.
• ***Reduce vulnerability to the hazard:***
  ○ Elevate home to appropriate levels.
• ***Increase Capability:***
  ○ Learn about risk reduction for the dam failure hazard.
  ○ Learn the evacuation routes for a dam failure event.
  ○ Educate yourself on early warning systems and the dissemination of warnings.
	• ***Manipulate the hazard:***
	  ○ Remove dams.
	  ○ Harden dams.
	• ***Reduce exposure to the hazard:***
	  ○ Replace earthen dams with hardened structures.
	  ○ Relocate facilities out of dam failure inundation areas.
	• ***Reduce vulnerability to the hazard:***
	  ○ Floodproof facilities within dam failure inundation areas.
	• ***Increase Capability:***
	  ○ Educate employees on the probable impacts of a dam failure.
	  ○ Develop a continuity of operations plan.
		• ***Manipulate the hazard:***
		  ○ Remove dams.
		  ○ Harden dams.
		• ***Reduce exposure to the hazard:***
		  ○ Replace earthen dams with hardened structures.
		  ○ Relocate critical facilities out of dam failure inundation areas.
		  ○ Consider open space land use in designated dam failure inundations areas.
		• ***Reduce vulnerability to the hazard:***
		  ○ Adopt higher floodplain standards in mapped dam failure inundation areas.
		  ○ Retrofit critical facilities within dam failure inundation areas.
		• ***Increase Capability:***
		  ○ Map dam failure inundation areas.
		  ○ Enhance emergency operations plans to include a dam failure component.
		  ○ Institute monthly communications checks with dam operators.
		  ○ Inform the public on risk reduction techniques.
		  ○ Adopt real-estate disclosure requirements for the re-sale of property located within dam failure inundation areas.
		  ○ Consider the probable impacts of climate change in assessing the risk associated with the dam failure hazard.

DAM FAILURE		
Personal Scale	**Corporate Scale**	**Government Scale**
		○ Establish early warning capability downstream of listed high-hazard dams. ○ Consider the residual risk associated with protection provided by dams in future land use decisions.

DISEASE OUTBREAK		
Personal Scale	**Corporate Scale**	**Government Scale**

• ***Manipulate the Hazard***:
  ○ None
• ***Reduce exposure to the hazard***:
  ○ Proper hygiene.
  ○ PPE.
  ○ Social distancing.
• ***Reduce vulnerability to the hazard:***
  ○ Focus on personal health.
• ***Increase Capability:***
  ○ Storage of PPE.
  ○ Storage of supplies and food to reduce need to enter public spaces.
	• ***Manipulate the Hazard:***
	  ○ None
	• ***Reduce exposure to the hazard:***
	  ○ PPE.
	  ○ Social distancing.
	• ***Reduce vulnerability to the hazard:***
	  ○ Distanced work environment.
	  ○ Regular cleaning of work environment.
	• ***Increase Capability:***
	  ○ Storage of PPE.
	  ○ Equipment for monitoring.
	  ○ Trainings for staff.
		• ***Manipulate the Hazard:***
		  ○ None
		• ***Reduce exposure to the hazard:***
		  ○ PPE.
		  ○ Social distancing.
		• ***Reduce vulnerability to the hazard:***
		  ○ Distanced work environment.
		  ○ Regular cleaning of work environment.
		• ***Increase Capability:***
		  ○ Storage of PPE.
		  ○ Equipment for monitoring/treatment.
		  ○ Trainings for staff.
		  ○ Public outreach.

DROUGHT		
Personal Scale	**Corporate Scale**	**Government Scale**

• ***Manipulate the Hazard:***
  ○ None
• ***Reduce exposure to the hazard:***
  ○ Consider stored water/captured water techniques during dry seasons.
  ○ Establishing an irrigation time/scheduling program or process so that all agricultural land gets the required amount of water. Through incremental timing, each area is irrigated at different times so that all water is not consumed at the same time. Spacing usage may also help with recharge of groundwater.
• ***Reduce vulnerability to the hazard:***
  ○ Drought resistant landscapes.
  ○ Reduce water system losses.
  ○ Regularly check for leaks to minimize water supply losses.
  ○ Install low-flow water saving showerheads and toilets.
  ○ Turn water flow off while brushing teeth or during other cleaning activities.
  ○ Adjust sprinklers to water the lawn and not the sidewalk or street.
  ○ Run the dishwasher and washing machine only when they are full.
	• ***Manipulate the Hazard:***
	  ○ None
	• ***Reduce exposure to the hazard:***
	  ○ Consider stored water/captured water techniques during dry seasons.
	• ***Reduce vulnerability to the hazard:***
	  ○ Drought resistant landscapes.
	  ○ Reduce private water system losses.
	  ○ Identify alternate water supply sources.
	  ○ Install low-flow water saving showerheads and toilets.
	  ○ Adjust sprinklers to water the lawn and not the sidewalk or street.
	• ***Increase Capability:***
	  ○ Practice active water conservation.
	  ○ Develop a COOP.
	  ○ Create a water conservation plan.
		• ***Manipulate the Hazard:***
		  ○ Ground Water Recharge through stormwater management.
		  ○ Implement cloud seeding techniques during dry seasons.
		• ***Reduce exposure to the hazard:***
		  ○ Identify and create ground water back up sources.
		  ○ Create /identify new impounded water supply points.
		  ○ Developing new or upgrading existing water delivery systems to eliminate breaks and leaks.
		• ***Reduce vulnerability to the hazard:***
		  ○ Water use conflict regulations.
		  ○ Reduce water system losses.
		  ○ Distribute water saving kits.
		  ○ Identify sites ideally suited for ground water recharge.
		  ○ Implement stormwater retention in regions ideally suited for groundwater recharges.
		  ○ Utilize drought resistant landscapes on community owned facilities.
		  ○ Encourage citizens to take water-saving measures.
		• ***Increase Capability:***
		  ○ Public education on drought resistance.
		  ○ Identify alternative water supplies for time of drought.

DROUGHT		
○ Check for leaks in plumping or dripping faucets. ○ Install rain-capturing devices for irrigation. ○ Install graywater systems in homes to encourage water reuse. ○ Rotate crops by growing a series of different types of crops on the same fields every season to reduce soil erosion. ○ Planting “cover crops,” such as oats, wheat, and buckwheat, to prevent soil erosion. • ***Increase Capability:*** ○ Practice active water conservation techniques. ○ Seek ways to operate wells in such a way to enhance their functional longevity and supply capability.		Mutual aid agreements with alternative suppliers. ○ Develop a drought contingency plan. ○ Develop criteria-"triggers" for drought related actions. ○ Improve accuracy of water supply forecasts. ○ Provide incentives to influence active water conservation techniques such as water user rate reductions. ○ Consider providing incentives to property owners that utilize drought resistant landscapes in the design of their homes. ○ Use of water buffalo tankers. ○ Promote well usage techniques that strive to enhance functional longevity and supply capability of private water supply wells. ○ Develop an ordinance to restrict the use of public water resources for non-essential usage, such as landscaping, washing cars, filling swimming pools, etc.

EARTHQUAKE		
Personal Scale	**Corporate Scale**	**Government Scale**

• ***Manipulate the Hazard***:
  ○ None
• ***Reduce exposure to the hazard***:
  ○ Locate outside of hazard area (off soft soils).
• ***Reduce vulnerability to the hazard:***
  ○ Retrofit structure (anchor house structure to foundation).
  ○ Secure household items that can cause injury or damage such as water heaters, bookcases, and other appliances.
  ○ Build to higher design standards.
• ***Increase Capability:***
  ○ Practice "drop, cover and hold"
  ○ Develop household mitigation plan, such as creating a retrofit savings account, communication capability with outside, 72 hr. self-sufficiency during an event.
  ○ Increase capability by having cash reserves for reconstruction.
  ○ Become informed on the hazard and risk reduction alternatives available.
  ○ Develop a post-disaster action plan for your household.
	• ***Manipulate the Hazard:***
	  ○ None
	• ***Reduce exposure to the hazard:***
	  ○ Locate/relocate mission critical functions outside hazard area where possible.
	• ***Reduce vulnerability to the hazard:***
	  ○ Build redundancy for critical functions/facilities.
	  ○ Retrofit critical buildings/areas housing mission critical functions.
	• ***Increase Capability:***
	  ○ Adopt higher standard for new construction -- Consider "performance-based design' when building new structures.
	  ○ Increase capability by having cash reserves for reconstruction.
	  ○ Inform your employees on the possible impacts of earthquake and how to deal with them at your work facility.
	  ○ Develop a Continuity of Operations Plan (COOP).
		• ***Manipulate the Hazard:***
		  ○ None
		• ***Reduce exposure to the hazard:***
		  ○ Locate critical facilities or functions outside of hazard area where possible.
		• ***Reduce vulnerability to the hazard:***
		  ○ Harden infrastructure.
		  ○ Provide redundancy for critical functions.
		  ○ Adopt higher regulatory standards for structures.
		  ○ Conduct "rapid screening" programs for critical facilities to identify facilities that may be particularly prone to EQ damage, then develop investigation/action plans to address such structures.
		• ***Increase Capability:***
		  ○ Provide better hazard maps.
		  ○ Provide technical information and guidance.
		  ○ Enact tools to help manage development in hazard areas: tax incentives, information.
		  ○ Include retrofitting/replacement of critical system elements in CIP.
		  ○ Develop strategy to take advantage of post disaster opportunities.

EARTHQUAKE		
Personal Scale	**Corporate Scale**	**Government Scale**
		○ Warehouse critical infrastructure components such as pipe, power line, and road repair material. ○ Develop and adopt a Continuity of Operations / Continuity of Government Plan (COOP/COG). ○ Initiate triggers guiding improvements such as: (< 50% substantial damage/improvements). ○ Further enhance seismic risk assessment to target high hazard buildings for mitigation opportunities. ○ Develop a post disaster action plan that includes a grant funding and debris removal components. ○ Utilize warning systems. ○ Educate builders and developers on seismic construction standards.

FLOOD		
Personal Scale	**Corporate Scale**	**Government Scale**

• ***Manipulate the Hazard:***
  ○ Clear stormwater drains and culverts.
• ***Reduce exposure to the hazard:***
  ○ Locate or re-locate outside of hazard area.
  ○ Institute low impact development techniques on property.
• ***Reduce vulnerability to the hazard:***
  ○ Retrofit existing structures and utilities above Base Flood Elevation (BFE).
  ○ Floodproof existing structures (wet- or dry floodproofing).
  ○ Store hazardous materials above BFE or outside of floodprone areas.
• ***Increase Capability:***
  ○ Develop household mitigation plan, such as retrofit savings, communication capability with outside, 72-hr. self-sufficiency during and after an event.
  ○ Buy flood insurance.
	• ***Manipulate the Hazard:***
	  ○ Clear stormwater drains and culverts.
	• ***Reduce exposure to the hazard:***
	  ○ Locate business critical facilities or functions outside hazard area.
	  ○ Institute low impact development techniques on property.
	• ***Reduce vulnerability to the hazard:***
	  ○ Build redundancy for critical functions/ retrofit critical buildings.
	  ○ Provide flood-proofing measures when new critical infrastructure must be located in floodplains.
	  ○ Harden structures and infrastructure (wet and dry-floodproofing).
	  ○ Store hazardous materials above BFE or outside of floodprone areas.
	• ***Increase Capability:***
	  ○ Increase capability by having cash reserves for reconstruction.
	  ○ Develop and adopt a Continuity of Operations Plan (COOP).
	  ○ Solicit 'cost-sharing" through partnerships with private sector stakeholders on projects with multiple benefits.
	  ○ Dam owner/operators should continue to be aware of and understand dam inspection and reporting requirements.
	  ○ Ensure that all dam EAP's are kept in compliance with State Regulations.
		• ***Manipulate the Hazard:***
		  ○ Clear stormwater drains and culverts
		  ○ Dredging, levee construction, providing retention areas.
		  ○ Structural flood control: levee's, dams, channelization, revetments.
		  ○ Construct regional stormwater control facilities.
		  ○ Lead and develop a county-wide stream clearing strategy including the development of thresholds for response/action.
		• ***Reduce exposure to the hazard:***
		  ○ Locate/re-locate critical facilities outside of hazard area.
		  ○ Acquire or relocate identified repetitive loss properties.
		  ○ Promote open space uses in identified high hazard areas via techniques such as: PUD's, easements, setbacks, greenways, sensitive area tracks.
		  ○ Adopt land development criteria such as PUD's, Density transfers, clustering.
		  ○ Institute low impact development techniques on property.
		  ○ Acquire vacant land or promote open space uses in developing watersheds to control increases in runoff.
		  ○ Pass an ordinance to incorporate additional zoning classifications into flood zones within each municipality.

FLOOD		
Personal Scale	**Corporate Scale**	**Government Scale**
		○ Increase floodplain standards within municipal ordinances and include provisions for enforcing best practice standards. ○ Consider increasing minimum freeboard beyond state requirements. ○ Continue development application reviews by County Planning Board to reduce risky development practices. • ***Reduce vulnerability to the hazard:*** ○ Harden structures and infrastructure (wet and dry-floodproofing). ○ Provide redundancy for critical functions and infrastructure. ○ Adopt appropriate regulatory standards such as cumulative substantial improvement/damage, freeboard, lower substantial damage threshold, compensatory storage. ○ Stormwater management regulations and master planning. ○ Adopt "no-adverse impact" floodplain management policies that strive to not increase the flood risk on down-stream communities. ○ Participate in the Community Rating System (CRS). ○ Implement as-built regulatory requirements. ○ Implement site review ordinances/requirements.

FLOOD		
Personal Scale	**Corporate Scale**	**Government Scale**
		○ Establish stream maintenance programs with stakeholders (e.g. Soil and Water Conservation District) - support county leads of such efforts. ○ Incorporate retrofitting/replacement of critical facilities and infrastructure in Capital Improvement Plans (CIPs). ○ Promote the use of vegetation/plants as green erosion control measures to reduce localized flooding. ○ Work with environmental groups to address removal of debris, log jams, etc. in flood vulnerable stream sections. • ***Increase Capability:*** ○ Produce better hazard maps, and improve access to flood hazard mapping ○ Capture/survey "high-water" marks during flood events. ○ Provide technical information and guidance on appropriate mitigation options available to businesses and homeowners. ○ Enact tools to help manage development in hazard areas (stronger controls, tax incentives, information). ○ Establish an additional layer of zoning within flood hazard areas. ○ Develop strategy to take advantage of post disaster opportunities. ○ Improve compliance with and enforcement of the NFIP.

FLOOD		
Personal Scale	**Corporate Scale**	**Government Scale**
		○ Develop mitigation partnerships with regional stakeholders. ○ Join Community Rating System (CRS) program, or improve level of participation in CRS. ○ Develop and implement a public information strategy for flood hazard awareness, flood insurance (NFIP) and mitigation. ○ Maintain existing data as well as gather new data needed to define risks and vulnerability. ○ Create a building and elevation inventory of structures in the floodplain ○ Identify flood prone areas that may be in need of new flood studies. ○ Establish a program to identify and educate owners of flood-prone properties of potential mitigation options (e.g. elevations, relocations). ○ Charge a hazard mitigation fee on all new permits to create a hazard mitigation funding source for initiatives or grant cost share requirements. ○ Integrate floodplain management policies into other planning mechanisms within the planning area. ○ Establish a Stormwater Utility to deal with urban drainage/flooding issues. ○ Establish incentives to promote flood hazard mitigation of private property (e.g. permit fee waivers).

FLOOD		
Personal Scale	**Corporate Scale**	**Government Scale**
		○ Adopt ordinances/standards for cumulative damages and/or improvements. ○ Upgrade NFIP Floodplain ordinance, as well as other ordinances to current or above current state and federal standards. ○ Develop and adopt a COOP. ○ Join "Storm Ready" Program. ○ Participate in county and regional training programs. ○ Provide additional training/certification to NFIP floodplain administrators and code officials. ○ Implement annual training to account for turnover of municipal officials. ○ Maintain and enhance flood forecasting ability, including the establishment and maintenance of critical stream gages. ○ Explore grant funding opportunities and potential partnerships to help maintain existing gages and install additional gages to improve forecasting and flood warning ability. ○ Promote awareness and participation in alert systems. ○ Support and participate in regional flood management efforts. ○ Support and implement hazard disclosure for the sale/re-sale of property in identified risk zones.

FLOOD		
Personal Scale	**Corporate Scale**	**Government Scale**
		○ Provide continued and enhanced training for emergency responders. ○ Establish a revolving "bank" or budget line item to fund grant application support. ○ Continue to review updated Flood Insurance Rate Maps to ensure accuracy as well as maintaining lines of communication with homeowners to make them aware of potential changes related to their property status. ○ Provide trainings for FPA's on the NFIP/Floodplain Best Practices and also pursue CFM accreditation for municipal FPA's. ○ Build and maintain relationships to develop regional watershed/floodplain mitigation solutions. ○ Pursue grant funding opportunities to fund repairs of catchments and infrastructure on a proactive basis. ○ Explore grant funding opportunities related to climate change to fund mitigation projects.

GEOLOGICAL HAZARDS		
Personal Scale	**Corporate Scale**	**Government Scale**

• ***Manipulate the Hazard***:
  ○ Apply soil stabilization measures, such as planting soil stabilizing vegetation on steep slopes.
• ***Reduce exposure to the hazard***:
  ○ None
• ***Reduce vulnerability to the hazard:***
  ○ None
• ***Increase Capability:***
  ○ None
	• ***Manipulate the Hazard:***
	  ○ None
	• ***Reduce exposure to the hazard:***
	  ○ None
	• ***Reduce vulnerability to the hazard:***
	  ○ None
	• ***Increase Capability:***
	  ○ None
		• ***Manipulate the Hazard:***
		  ○ Implement reinforcement measures in high-risk areas.
		  ○ Use debris flow measures that may reduce damage in sloping areas, such as stabilization, emergency dissipation, and flow control measures.
		  ○ Apply soil stabilization measures, such as planting soil stabilizing vegetation on steep, publicly owned slopes.
		• ***Reduce exposure to the hazard:***
		  ○ Consider hazard areas in land-use planning, zoning, and development siting.
		  ○ Acquire structures in highest hazard areas (demolish and convert to restricted open space).
		  ○ Relocation of Structures.
		  ○ Open Space Preservation.
		  ○ Create or increase setback limits on parcels near high-risk parcels.
		• ***Reduce vulnerability to the hazard:***
		  ○ Consider hazard areas in land-use planning and development siting.
		  ○ Stabilize vulnerable slopes near
		  ○ structures and infrastructure.
		  ○ Work with stakeholders such as USGS to develop appropriate risk reduction strategies.

GEOLOGICAL HAZARDS		
Personal Scale	**Corporate Scale**	**Government Scale**
		○ Install catch-fall nets for rocks at steep slopes near roadways. • ***Increase Capability:*** ○ Increase understanding of hazard areas (e.g. Landslide Susceptibility Maps) - geotechnical surveys, LIDAR and mapping. ○ Assessing vegetation in wildfire-prone areas to prevent landslides after fires (e.g. encourage plants with strong root systems). ○ Work with stakeholders such as USGS to develop appropriate risk reduction strategies. ○ Support and implement hazard disclosure for the sale/re-sale of property in identified risk zones. ○ Develop county-level programs to document slide events (landslide inventory), and maintain its currency.

HAZARDOUS MATERIALS		
Personal Scale	**Corporate Scale**	**Government Scale**

• ***Manipulate the Hazard***:
  ○ Identify and eliminate sources of potential hazardous material spills.
• ***Reduce exposure to the hazard***:
  ○ Increase distance between hazardous material sites and development.
• ***Reduce vulnerability to the hazard:***
  ○ None
• ***Increase Capability:***
  ○ Personal planning for potential event.
	• ***Manipulate the Hazard:***
	  ○ Identify and eliminate sources of potential hazardous material spills.
	• ***Reduce exposure to the hazard:***
	  ○ None
	• ***Reduce vulnerability to the hazard:***
	  ○ None
	• ***Increase Capability:***
	  ○ Increase inspection of hazardous material facilities and transport vehicles.
	  ○ Conduct training for response.
		• ***Manipulate the Hazard:***
		  ○ Identify and eliminate sources of potential hazardous material spills.
		• ***Reduce exposure to the hazard:***
		  ○ Increase inspection of hazardous material facilities and transport vehicles.
		• ***Reduce vulnerability to the hazard:***
		  ○ None
		• ***Increase Capability:***
		  ○ Increase inspection of hazardous material facilities and transport vehicles.
		  ○ Conduct training for response.
		  ○ Public outreach.

HURRICANE		
Personal Scale	**Corporate Scale**	**Government Scale**

• ***Manipulate the Hazard:***
  ○ None
• ***Reduce exposure to the hazard:***
  ○ None
• ***Reduce vulnerability to the hazard:***
  ○ Retrofit structures (improved roofing, glazing, insulation, etc.).
  ○ Provide for redundant heat and power.
  ○ Contact municipality or utilities to trim or remove trees that could affect power lines.
  ○ Plant appropriate trees near home and power lines ("Right tree, right place" National Arbor Day Foundation Program.
• ***Increase Capability:***
  ○ Improve awareness of impending severe weather (e.g. obtain a NOAA weather radio).
  ○ Promote 72-hour self-sufficiency.
  ○ Provide for redundant heat and power.
	• ***Manipulate the Hazard:***
	  ○ None
	• ***Reduce exposure to the hazard:***
	  ○ None
	• ***Reduce vulnerability to the hazard:***
	  ○ Relocate critical infrastructure, such as power lines, underground
	  ○ Reinforce or relocate critical infrastructure such as powerlines so that it meets performance expectations.
	• ***Increase Capability:***
	  ○ Contact municipality or utilities to trim or remove trees that could affect power lines.
	  ○ Create redundancy (e.g. backup generators).
	  ○ Improve awareness of impending severe weather (e.g. obtain a NOAA weather radio).
	  ○ Develop a Continuity of Operations Plan (COOP).
	  ○ Monitor impending storm events so that you can release employees in such a manner as to not negatively impact emergency response personnel/services.
		• ***Manipulate the Hazard:***
		  ○ None
		• ***Reduce exposure to the hazard:***
		  ○ None
		• ***Reduce vulnerability to the hazard:***
		  ○ Harden infrastructure such as locating utilities underground.
		  ○ Trimming trees back from power lines.
		  ○ Designate and strengthen critical road sections and bridges.
		  ○ Adopt ordinances that regulate the type and quantity of trees planted near utility lines.
		  ○ Relocate critical infrastructure, such as power lines, underground.
		  ○ Require minimum temperatures in housing/landlord codes.
		• ***Increase Capability:***
		  ○ Support programs such as "Tree Watch" that proactively manage problem areas by use of selective removal of hazardous trees, tree replacement, etc.
		  ○ Enforce building codes.
		  ○ Increase communication alternatives.
		  ○ Modify land use and environmental regulations to support vegetation management

HURRICANE		
Personal Scale	**Corporate Scale**	**Government Scale**
		activities that improve reliability in utility corridors. ○ Modify landscape and other ordinances to encourage appropriate planting near overhead power, cable, and phone lines. ○ Promote awareness and participation in alert systems. ○ Provide NOAA weather radios to the public. ○ Create/Enhance "mutual aid" agreements for response to all emergencies. ○ Create/identify evacuation routes to be utilized during severe storm events. ○ Develop debris management plans. ○ Join "Storm-Ready" program. ○ Provide early warning of impending hurricane events to identified critical or essential facilities. This would include facilities such as large employments centers, schools, hospitals. ○ Promote emergency power supplies to private property. ○ Improve, expand, or harden communications facilities and services.

HURRICANE		
Personal Scale	**Corporate Scale**	**Government Scale**
		○ Recruit additional emergency personnel or use mutual aid agreements. ○ Increase sheltering capabilities. ○ Increase capability to respond to power outages and downed power lines. ○ Establish partnerships with utility providers through pro-active planning.

INFESTATION AND INVASIVE SPECIES		
Personal Scale	**Corporate Scale**	**Government Scale**

• ***Manipulate the Hazard***:
  ○ Participate in quarantine, control, or eradication programs.
• ***Reduce exposure to the hazard***:
  ○ Comply with harmful algal bloom rules and regulations to minimize the exposure to HAB.
• ***Reduce vulnerability to the hazard:***
  ○ Form citizen action groups to promote awareness and best practices on local levels.
• ***Increase Capability:***
  ○ Regularly check the NJ DEP HAB and Invasive Species information page for updated information.
  ○ Comply with Invasive Species rules and regulations to minimize the chance for invasive species to spread.
  ○ Broaden collaborations focused on ecosystem restoration and ecosystem-based management.
	• ***Manipulate the Hazard:***
	  ○ None
	• ***Reduce exposure to the hazard:***
	  ○ None
	• ***Reduce vulnerability to the hazard:***
	  ○ None
	• ***Increase Capability:***
	  ○ Build and maintain partnerships with government agencies, academia, and stakeholders to coordinate information sharing, and response for Invasive Species and Harmful Algal Blooms throughout the county/region.
		• ***Manipulate the Hazard:***
		  ○ Work with Federal/State agencies on quarantine, control, or eradication programs for invasive species.
		• ***Reduce exposure to the hazard:***
		  ○ Create/disseminate planting guides which explain which types of plants and vegetation are safe to plant within the county.
		• ***Reduce vulnerability to the hazard:***
		  ○ Pass municipal ordinances to enforce best practices for invasive species at the local level.
		• ***Increase Capability:***
		  ○ Build and maintain partnerships with other stakeholders to coordinate information sharing, and response for Invasive Species throughout the county/region.
		  ○ Work with federal/state agencies to disseminate information to local municipalities regarding Invasive Species from the NJ DEP and US EPA.
		  ○ Disseminate information to the general public to educate them on Invasive Species.
		  ○ Work with stakeholders to identify and expand resources for prevention and early detection of invasive species.

INFESTATION AND INVASIVE SPECIES		
Personal Scale	**Corporate Scale**	**Government Scale**
		○ Broaden collaborations focused on ecosystem restoration and ecosystem-based management. ○ Build ecological restoration planning into IS management projects.

NOR'EASTER		
Personal Scale	**Corporate Scale**	**Government Scale**

• ***Manipulate the Hazard:***
  ○ None
• ***Reduce exposure to the hazard:***
  ○ None
• ***Reduce vulnerability to the hazard:***
  ○ Retrofit structures (improved roofing, glazing, insulation, etc.).
  ○ Provide for redundant heat and power.
  ○ Contact municipality or utilities to trim or remove trees that could affect power lines.
  ○ Plant appropriate trees near home and power lines ("Right tree, right place" National Arbor Day Foundation Program.
• ***Increase Capability:***
  ○ Improve awareness of impending severe weather (e.g. obtain a NOAA weather radio).
  ○ Promote 72-hour self-sufficiency.
  ○ Provide for redundant heat and power.
	• ***Manipulate the Hazard:***
	  ○ None
	• ***Reduce exposure to the hazard:***
	  ○ None
	• ***Reduce vulnerability to the hazard:***
	  ○ Relocate critical infrastructure, such as power lines, underground.
	  ○ Reinforce or relocate critical infrastructure such as powerlines so that it meets performance expectations.
	• ***Increase Capability:***
	  ○ Contact municipality or utilities to trim or remove trees that could affect power lines.
	  ○ Create redundancy (e.g. backup generators).
	  ○ Improve awareness of impending severe weather (e.g. obtain a NOAA weather radio).
	  ○ Develop a Continuity of Operations Plan (COOP).
	  ○ Monitor impending storm events so that you can release employees in such a manner as to not negatively impact emergency response personnel/services.
		• ***Manipulate the Hazard:***
		  ○ None
		• ***Reduce exposure to the hazard:***
		  ○ None
		• ***Reduce vulnerability to the hazard:***
		  ○ Harden infrastructure such as locating utilities underground.
		  ○ Trimming trees back from power lines.
		  ○ Designate and strengthen critical road sections and bridges.
		  ○ Adopt ordinances that regulate the type and quantity of trees planted near utility lines.
		  ○ Relocate critical infrastructure, such as power lines, underground.
		• ***Increase Capability:***
		  ○ Support programs such as "Tree Watch" that proactively manage problem areas by use of selective removal of hazardous trees, tree replacement, etc.
		  ○ Enforce building codes.
		  ○ Increase communication alternatives.
		  ○ Modify land use and environmental regulations to support vegetation management activities that improve reliability in utility corridors.

NOR'EASTER		
Personal Scale	**Corporate Scale**	**Government Scale**
		○ Modify landscape and other ordinances to encourage appropriate planting near overhead power, cable, and phone lines. ○ Promote awareness and participation in alert systems. ○ Provide NOAA weather radios to the public. ○ Create/Enhance "mutual aid" agreements for response to all emergencies. ○ Create/identify evacuation routes to be utilized during severe storm events. ○ Develop debris management plans. ○ Join "Storm-Ready" program. ○ Provide early warning of impending nor'easter events to identified critical or essential facilities. This would include facilities such as large employments centers, schools, hospitals. ○ Promote emergency power supplies to private property. ○ Improve, expand, or harden communications facilities and services.

NOR'EASTER		
Personal Scale	**Corporate Scale**	**Government Scale**
		○ Recruit additional emergency personnel or use mutual aid agreements. ○ Increase sheltering capabilities. ○ Increase capability to respond to power outages and downed power lines. ○ Establish partnerships with utility providers through pro-active planning.

SEVERE WEATHER		
Personal Scale	**Corporate Scale**	**Government Scale**

• ***Manipulate the Hazard:***
  ○ Increase tree plantings.
  ○ Installation of green roofs to provide shade and remove heat.
  ○ Use cool roofing products that reflect sunlight and heat away from a building.
• ***Reduce exposure to the hazard:***
  ○ None
• ***Reduce vulnerability to the hazard:***
  ○ Retrofit structures (improved roofing, glazing, insulation, etc.).
  ○ Provide for redundant heat and power.
  ○ Contact municipality or utilities to trim or remove trees that could affect power lines.
  ○ Plant appropriate trees near home and power lines ("Right tree, right place" National Arbor Day Foundation Program.
  ○ Retrofit pipes including locating water pipes on the inside of building insulation or keeping them out of vulnerable spaces to extreme cold.
• ***Increase Capability***
  ○ Improve awareness of impending severe weather (e.g. obtain a NOAA weather radio).
  ○ Promote 72-hour self-sufficiency.
	• ***Manipulate the Hazard:***
	  ○ Increase tree plantings.
	  ○ Installation of green roofs to provide shade and remove heat.
	  ○ Use cool roofing products that reflect sunlight and heat away from a building.
	• ***Reduce exposure to the hazard:***
	  ○ None
	• ***Reduce vulnerability to the hazard:***
	  ○ Relocate critical infrastructure, such as power lines, underground.
	  ○ Reinforce or relocate critical infrastructure such as powerlines so that it meets performance expectations.
	  ○ Retrofit pipes including locating water pipes on the inside of building insulation or keeping them out of vulnerable spaces to extreme cold.
	• ***Increase Capability:***
	  ○ Contact municipality or utilities to trim or remove trees that could affect power lines.
	  ○ Create redundancy (e.g. backup generators).
	  ○ Improve awareness of impending severe weather (e.g. obtain a NOAA weather radio).
		• ***Manipulate the Hazard:***
		  ○ Increase tree plantings.
		  ○ Encourage installation of green roofs to provide shade and remove heat.
		  ○ Encourage the use of cool roofing products that reflect sunlight and heat away from a building.
		• ***Reduce exposure to the hazard:***
		  ○ None
		• ***Reduce vulnerability to the hazard:***
		  ○ Harden infrastructure such as locating utilities underground.
		  ○ Trimming trees back from power lines.
		  ○ Designate and strengthen critical road sections and bridges.
		  ○ Adopt ordinances that regulate the type and quantity of trees planted near utility lines.
		  ○ Relocate critical infrastructure, such as power lines, underground.
		  ○ Require minimum temperatures in housing/landlord codes.
		• ***Increase Capability:***
		  ○ Support programs such as "Tree Watch" that proactively manage problem areas by use of selective removal of hazardous trees, tree replacement, etc.
		  ○ Enforce building codes.

SEVERE WEATHER		
Personal Scale	**Corporate Scale**	**Government Scale**
○ Provide for redundant heat and power.	○ Develop a Continuity of Operations Plan (COOP). ○ Monitor impending storm events so that you can release employees in such a manner as to not negatively impact emergency response personnel/services. ○ Set rules restricting outdoor work during extreme temperature events.	○ Increase communication alternatives. ○ Modify land use and environmental regulations to support vegetation management activities that improve reliability in utility corridors. ○ Modify landscape and other ordinances to encourage appropriate planting near overhead power, cable, and phone lines. ○ Promote awareness and participation in alert systems. ○ Provide NOAA weather radios to the public. ○ Create/Enhance "mutual aid" agreements for response to all emergencies. ○ Create/identify evacuation routes to be utilized during severe storm events. ○ Develop debris management plans. ○ Join "Storm-Ready" program. ○ Provide early warning of impending severe storm events to identified critical or essential facilities. This would include facilities such as large employments centers, schools, hospitals.

SEVERE WEATHER		
Personal Scale	**Corporate Scale**	**Government Scale**
		○ Promote emergency power supplies to private property. ○ Improve, expand, or harden communications facilities and services. ○ Recruit additional emergency personnel or use mutual aid agreements. ○ Increase sheltering capabilities. ○ Increase capability to respond to power outages and downed power lines. Establish partnerships with utility providers through pro-active planning. ○ Educate citizens regarding the dangers of extreme heat and cold and the steps they can take to protect themselves when extreme temperatures occur. ○ Establish warming and cooling centers. ○ Establish extreme temperature planning in emergency operation plans. ○ Create a database to track those individuals at high risk of death such as the elderly, homeless, etc.

SEVERE WINTER WEATHER		
Personal Scale	**Corporate Scale**	**Government Scale**

• ***Manipulate the Hazard*:**
  ○ None
• ***Reduce exposure to the hazard*:**
  ○ Plant appropriate trees near home and power lines ("Right tree, right place" National Arbor Day Foundation).
• ***Reduce vulnerability to the hazard:***
  ○ Insulate House to provide greater thermal efficiency and reduce heat loss.
  ○ Provide redundant heat and power.
  ○ Insulate Structure.
  ○ Ensure natural gas input/release valves do not get covered in snow.
• ***Increase Capability:***
  ○ Trim or remove trees that could affect power lines.
  ○ Prepare emergency food and supplies to be self-sufficient for at least 72 hours in the event of a severe winter storm.
  ○ Be aware of inclement weather conditions and move your vehicles off of the street as severe weather systems approach.
  ○ Retrofit structures.
	• ***Manipulate the Hazard:***
	  ○ None
	• ***Reduce exposure to the hazard:***
	  ○ None
	• ***Reduce vulnerability to the hazard:***
	  ○ Relocate critical infrastructure, such as power lines, underground.
	  ○ Reinforce or relocate critical infrastructure such as powerlines so that it meets performance expectations.
	  ○ Install tree wire.
	• ***Increase Capability:***
	  ○ Trim or remove trees that could affect power lines.
	  ○ Create redundancy in utilities and communications.
	  ○ Develop a Continuity of Operations Plan (COOP) to address operations before, during and after coastal storm events.
	  ○ Utilize weather radios at the work place to keep your employees aware of severe weather conditions.
		• ***Manipulate the Hazard:***
		  ○ None
		• ***Reduce exposure to the hazard:***
		  ○ None
		• ***Reduce vulnerability to the hazard:***
		  ○ Harden infrastructure such as locating utilities underground where appropriate.
		  ○ Trimming trees back from power lines.
		  ○ Designate snow routes and strengthen critical road sections and bridges.
		  ○ Adopt codes and regulations that address the issues of parking of vehicles along roadways during severe weather events.
		  ○ Develop or enhance the capacity/capability of stormwater conveyance systems.
		  ○ Provide backup power sources at vital critical facilities.
		• ***Increase Capability:***
		  ○ Support programs that proactively manage problem areas by use of selective removal of hazardous trees, tree replacement, etc.
		  ○ Establish and enforce building codes that require all roofs to withstand snow loads--

SEVERE WINTER WEATHER		
Personal Scale	**Corporate Scale**	**Government Scale**
		Develop/Improve/Enforce building Codes in Hazard Areas. ○ Increase communication alternatives. ○ Modify land use and environmental regulations to support vegetation management activities that improve reliability in utility corridors. ○ Modify landscape and other ordinances to encourage appropriate planting near overhead power, cable, and phone lines. ○ Provide weather radios to vulnerable populations. ○ Enhance public awareness campaigns to address those issues of alert and warning and actions to take during severe weather events. ○ Utilize the best available technology to enhance the warning systems for all severe weather events (i.e.: tornado warning systems). ○ Coordinate severe weather warning capabilities and the dissemination of warning amongst those agencies within the planning are with the highest degree of capability.

SEVERE WINTER WEATHER		
Personal Scale	**Corporate Scale**	**Government Scale**
		○ Encourage local ordinances for planting tree near lines and join Tree City USA. ○ Increase tree management programs. ○ Join the Community Rating System. ○ Join "Storm-Ready". ○ Retrofit critical structures and promote hazard resistant construction. ○ Keep open communications and education of hazards for mobile home communities. ○ Retrofit above-ground utilities to underground facilities if appropriate. ○ Create a salt reserve or research alternates to stretch salt reserve. ○ Ensure accessibility to hospitals. ○ Provide better debris logistics and removal. ○ Provide better communication systems and back-up communication systems to inform public of hazards and to communicate during the hazard event.

WILDFIRE		
Personal Scale	**Corporate Scale**	**Government Scale**

• ***Manipulate the Hazard***:
  ○ Clear potential fuels on property; dry, overgrown underbrush; diseased trees.
• ***Reduce exposure to the hazard***:
  ○ Clean and maintain defensible space around structures.
  ○ Locate outside hazard area.
  ○ Mow regularly.
• ***Reduce vulnerability to the hazard:***
  ○ Create and maintain defensible space around structures, provide water on site.
  ○ Use fire-retardant building materials.
  ○ Create defensible spaces around your home..
• ***Increase Capability***
  ○ Employ Firewise techniques to safeguard your home.
  ○ Identify alternative water supply points proximate to your home such as swimming pools, lakes, streams.
  ○ Support your local fire department.
  ○ Be aware of weather conditions that support/enhance the probability of wildfires.
	• ***Manipulate the Hazard:***
	  ○ None
	• ***Reduce exposure to the hazard:***
	  ○ None
	• ***Reduce vulnerability to the hazard:***
	  ○ Create and maintain defensible space around structure and infrastructure and provide water onsite.
	  ○ Use fire-retardant building materials.
	  ○ Provide stored water to be utilized for firefighting with appropriate fire department connections at facilities not equipped with fire hydrants or inadequate fire hydrant spacing.
	• ***Increase Capability:***
	  ○ Support Firewise community initiatives.
		• ***Manipulate the Hazard:***
		  ○ None
		• ***Reduce exposure to the hazard:***
		  ○ Clear fuels (dry underbrush, diseased trees) on land that can trigger and maintain wildfires.
		  ○ Implement Best Management Practices on public lands.
		• ***Reduce vulnerability to the hazard:***
		  ○ Create and maintain defensible space around structure and infrastructure.
		  ○ Higher regulatory standards.
		  ○ Establish water main supply and hydrants in unhydranted areas.
		  ○ Decrease hydrant spacing.
		• ***Increase Capability:***
		  ○ More public outreach and education efforts including an active “Firewise” program.
		  ○ Identify fire response and alternative evacuation routes.
		  ○ Seek alternative water supplies in urban wildland interface areas.
		  ○ Become a "Firewise" community.
		  ○ Increase capability to fight wildfires utilizing equipment that can support wildfire fighting such as: tankers, engines with "pump-

WILDFIRE		
Personal Scale	**Corporate Scale**	**Government Scale**
		and-run" capabilities, dump tanks for tanker shuttle operations. ○ Develop/implement wildfire management plans. ○ Establish Mutual Aid Agreements with the Tender Task Force ○ Develop a Water Supply Plan.

APPENDIX D. MUNICIPAL PARTICIPATION DOCUMENTATION

Appendix D includes copies of worksheets submitted by each participating jurisdiction during the development of the Lancaster County Hazard Mitigation Plan.

Lancaster County

Hazard Identification and Risk Evaluation Worksheet

Name: RICHARD (DICK) STEEG **Title:** DEV (VOLUNTEER)

Jurisdiction: N/A (LANCASTER Co.) **Email:** dicksteeg@outlook.com

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought ✓		POWER PLANTS WATER/WASTE WATER PLANTS
Earthquake ✓		IMPACT ON UNDERGROUND UTILITIES
Flood, Flash Flood, Ice Jam ✓		POTENTIAL LANDSLIDE
Hailstorms ✓		
Invasive Species ✓	LANTERN FLY BEETLES ASIT BORER	
Pandemic ✓		
Radon Exposure ✓		INSPECTIONS REQUIRED
Subsidence and Sinkholes ✓	& LANDSLIDE	
Tornado and Windstorm ✓		UTILITY INFOSTRUCTURE
Wildfire ✓		
Winter Storm ✓		
Human-Caused Hazards		
Dam Failure ✓		
Environmental Hazards (Hazmat) ✓		
Nuclear Incidents		
Transportation Accidents		
Utility Interruption		

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

(1) OVERLAY COUNTY/LOCAL MASTERPLAN TO THE HAZ-MITG. PLAN AND RE-CHECK HAZARDS

(2) CONTACT UTILITIES FOR THEIR EMERGENCY MGMT PLANS REGARDING THE HAZARDS NOTED HERE
- ELEC & GAS
- WATER / WASTEWATER
- DOT

} CROSS REFERENCE

Hazard Identification and Risk Evaluation Worksheet

Name: Ben Hershkowitz Title: Dep. Director

Jurisdiction: County Email: bhershkowitz@lancastercounty.gov

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	I	Increased water usage
Earthquake	NC	
Flood, Flash Flood, Ice Jam	I	Population growth
Hailstorms	NC	
Invasive Species	I	Increases in spec
Pandemic	I	Lower vax rates
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	↑ on Some ↓ on Others
Nuclear Incidents	~~NC~~ D	TMI closed
Transportation Accidents	I	more vehicles
Utility Interruption	I	Cyber

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ■ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ■ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Lancaster County

Name/Title of Individual Completing Worksheet: Brooke Goodling/ Community Resilience Coordinator

Zachary Gibbons/ Hazmat Administrator

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Gross expansion in Lancaster County. Land development in areas with increased hazard risks.	Increased environmental and risk assessments to better determine where land should or should not be developed.	All ranked natural hazards.

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Noncompliance of long-term care facilities with CMS preparedness requirements.	Increase support capabilities, better facility evacuation plans and long-term placement plans in lieu of “pushing” into hospitals.	Utility interruption.

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Water and wastewater authorities are not often included in environmental impacted emergencies.	Increased training and exercises available to water and wastewater authorities.	Flooding, Flash Flooding, Ice Jam Dam Failure.

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Flooding is the number 1 natural hazard in Lancaster County.	Obtain and implement updated flood gauge information into flood inundation mapping so we can better notify and predict flood hazard areas before flooding occurs. Improving flood forecasting technology to identify new areas for flood mitigation projects.	Flooding, Flash Flooding, Ice Jam Dam Failure.

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Increased occurrences of cyber attacks nation wide on critical facilities.	Continuing to work with County IT and CISO to improve our cyber security capabilities.	Cyber Incident, Utility Interruption, Terrorism.
Access control and physical security.	Improving access control and physical security at county owned and rented properties	Cyber Incident, Terrorism

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Exponential growth in socially vulnerable and underserved populations.	Continue to build and foster relationships with community leaders within Lancaster County.	All ranked hazards.
Needs of socially vulnerable and underserved community residents within the Emergency Planning Zone (EPZ) for Peach Bottom. Farmers returning to the EPZ to care for livestock.	Having modern transportation for emergency workers/plain community farmers to limit exposure time.	Nuclear Incident, Terrorism, Environmental Hazards.
Chronically unhoused and economically unstable are pushed out of shelters and not regularly accepted into retail (hotels).	Better shelter planning at the local levels and continued training and communication with local Red Cross chapter and PA Department of Human Services.	All ranked hazards

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Diverse written and spoken languages within Lancaster County	Continue expansion of translation services. Continue to build relationships for diverse community groups.	All ranked hazards.
Diverse written and spoken languages and means of transportation within Lancaster County	Better cultural integration into planning and exercise.	All ranked hazards

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Cyber incidents	Working with our county CISO and Public Safety Technology staff to develop redundancies for 9-1-1 communications infrastructure and emergency management operation capabilities.	Cyber Incidents, Terrorism, Utility Interruption
Terrorism / mis/mal/disinformation, civil unrest	Continue to build and foster relationships between the County Commissioners office, the County Communications Director and local news media. Increase awareness and training to manage mis information in all forms that have the potential to result in civil unrest.	All ranked hazards

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Lancaster County Planning Department

Name/Title of Individual Completing Worksheet: Sharon Cino, Senior Planner

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Planning documents and studies in need of updates to improve land use, planning development patterns, stormwater management, and flood mitigation.	a, Currently updating urban and village growth area boundaries for Future Land Use and Transportation Map which will improve land use patterns and help to better manage stormwater runoff.	Flood/Flash Floods, Dam Failures
	b. Currently working with multiple municipal planning partners in drafting regional comprehensive plans leading to improved growth management and opens space, natural land, and agricultural land preservation	Flood/Flash Floods, Dam Failures
	c. Currently updating Countywide Act 167 Stormwater Management Plan which will encourage regional approaches to stormwater management and flood mitigation and encourage creative and innovative approaches, including regional stormwater facilities, floodplain restoration and wetland creation, critical aquifer recharge areas, and increased tree canopy.	Flood/Flash Floods, Dam Failures
	d. As part of Phase 2 of the Act 167 Plan, have the County and municipalities adopt a new model stormwater ordinance for consistency throughout entire watersheds, and across boundaries.	Flood/Flash Floods, Dam Failures
While places2040 calls for working across boundaries, there is still room for improvement to encourage a regional approach (or watershed-based approach) to watershed planning and stormwater management and improved cooperation between municipalities to address accelerated stormwater runoff and degradation of streams and increased flooding.	Update Act 167 Plan which will address some of these issues. Further encourage cooperation between the Lancaster County Planning Department and its planning partners to accommodate hazard mitigation actions such as improved stormwater management, green infrastructure, open space, natural land and agricultural land preservation.	Flood/Flash Floods, Dam Failures

Problem	Solution	Hazard(s) Addressed
Lack of public awareness regarding the damaging hazard impacts of accelerated stormwater runoff from land development and how this contributes to degraded and impaired streams	Improved focus on this issue, with improved outreach, education, and advocacy.	Flood/Flash Floods, Dam Failures
Missed opportunities to link benefits and cost efficiencies during project design and planning	Whenever a capital improvement, transportation, or land development project is undertaken, look for ways to stack benefits, e.g. when replacing or repairing bridges/culverts look for opportunities for streambank restoration, improved channel design and floodplain management. When doing road projects, look for ways to incorporate green infrastructure.	Flood/Flash Floods, Dam Failures, Transportation Accidents
Dams removed without proper planning to mitigate negative impacts to downstream communities	Engage in coordinated removal of legacy sediments before dam is removed and utilize floodplain restoration to stabilize and restore the stream/creek and ecosystem.	Flood/Flash Floods, Dam Failures

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
N/A	N/A	N/A
N/A	N/A	N/A

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Poorly planned land development, lack of watershed based/regional stormwater management, and poor collaboration and coordination in project planning/design with municipal neighbors and government agencies result in damaged roads, bridges, culverts, and water/sewer infrastructure.	Encourage the Hazard Mitigation Coordinator to work with Lancaster County Planning Department on Phase 1 of the Lancaster County Act 167 Stormwater Management Plan. Phase 1 of the new plan will document known problem areas that are either historical or have become issues since the adoption of the 2013 Act 167 plan.	Flood/Flash Flood, Dam Failure
Damage to roadways, properties, waterways and disruptions of transportation systems all increase the risk of injuries or fatalities.		Transportation Accidents

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Flooding in vulnerable communities and in areas outside the County's growth boundaries Inadequate stormwater management Contaminated drinking water sources Degraded watersheds and ecosystems, especially loss of forests and tree canopy cover	Encourage Hazard Mitigation Coordinator to work with Lancaster County Planning Department, on the Phase 1 of the Lancaster County Act 167 Stormwater Management Plan. Phase 1 of the new plan will document known problem areas that are either historical or have become issues since the adoption of the 2013 Act 167 plan.	Flood/Flash Floods, Dam Failures,
Lack of public education regarding damage to properties. This lack of public awareness leads to increased costs for flood recovery.		Flood/Flash Floods, Dam Failures,

Problem	Solution	Hazard(s) Addressed
Lack of public education about erosion of streambanks, leading to increased sedimentation, etc.		Flood/Flash Floods, Dam Failures,
Lack of public education about negative effects of impervious surfaces preventing water from percolating into the ground and increasing the reliance on external water sources.		Flood/Flash Floods, Dam Failures,

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Aging transportation infrastructure and roadway networks. Including major highways such as US Route 30, railways, and local roads.	Encourage the Hazard Mitigation Coordinator to collaborate with LCPD and the MPO to share online updates that help identify hazards for roadways, bridges, and other transportation infrastructure.	Transportation accidents, Dam Failure, Fooding, Flash Floods
Flooding in vulnerable communities.	Encourage coordination with LCPD and the update to the ACT 167 plan.	Flood/Flash Floods, Dam Failures,
Lack of public awareness for hazards related to transportation infrastructure and roadway networks contributing to fatalities.		Transportation Accidents
Flooding in vulnerable communities		Flood/Flash Floods, Dam Failures,

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Non-English speakers, people with disabilities, and those without internet access may not receive timely emergency alerts or instructions.	Encourage working closely with LCPD to provide public participation support through coordination efforts with planning liaisons. Encourage the Hazard Mitigation Coordinator to work with LCPD to distribute LEP materials and translations services.	Cyber Incidents, Drought, Hailstorms, Floods, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm, pandemic and infectious disease, invasive species, hazardous materials releases
Displacement of those living in vulnerable communities.	Encourage working with Lancaster Housing Authority to accommodate anyone experience displacement and hazard assistance.	Flood/Flash Floods, Dam Failures,
Lack of public awareness for hazards related to transportation infrastructure and roadway networks contributing to hazards or fatalities.		Transportation Accidents
Displacement during hazard related event		

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Hazard public education On line reporting system becomes unavailable or is not available	Encourage multiple ways to reach out to jurisdictions to let them know when the public comment time is open. Create a backup monitoring system in case a hazard occurs that does not allow the on-line system to be utilized. Encourage the use of multiple public notices and media releases to inform the public of the availability of the HMP. Encourage the Hazard Mitigation Coordinator to work with LCPD to use social media to provide updates and hazard preparedness education.	Cyber Incidents, Drought, Hailstorms, Floods, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm, pandemic and infectious disease, invasive species, hazardous materials releases

Problem	Solution	Hazard(s) Addressed
Significant population in Lancaster County that are non-English speakers	Encourage the Hazard Mitigation Coordinator to work with LCPD during the ACT 167 plan update. Encourage the Hazard Mitigation Coordinator to work with the LCPD to share hazard related educational materials during public outreach events, including LEP printed materials.	Cyber Incidents, Drought, Floods, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm, pandemic and infectious disease, invasive species, hazardous materials releases

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed
N/A	N/A	N/A
N/A	N/A	N/A

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Lancaster County

Name/Title of Individual Completing Worksheet: _____

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Non-Ambulatory Transportation / EMS Resources	Need more transportation available	
Supply Chain Disruption	Need Reliable / Redundant Sources	
Staffing	Additional Staff for Healthcare / Workforce Development	

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Long Term Care	Provide redundant Power	Utility – Power Failure
Dialysis	Provide redundant Power	Utility – Power Failure
Home Health- who at home Is relying on O2, or special need	Provide redundant Power	Utility – Power Failure

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
State Rd and Yellow Goose Rd	New Plan needed based off of new land development	

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Niss Ave Ephrata	Needs buy out or something as it's a continuous flood area	

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Traffic Concerns, as traffic is more and more congested, and accident volumes are up – makes it hard to get to any critical lifelines	Infrastructure Improvements throughout the county	

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Transportation in General	Expanding Access to areas in need	
Utilization of Routine Healthcare Needs	Educating on the importance of routine healthcare maintenance and insurance assistance, social services needs	
Misuse of EMS	Fund alternative access points to get the assistance needed, educate general population on appropriate use of EMS, Hospitals, etc.	

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Utilization of Routine Healthcare Needs	Educating on the importance of routine healthcare maintenance and insurance assistance, social services needs	
Misuse of EMS	Fund alternative access points to get the assistance needed, educate general population on appropriate use of EMS, Hospitals, etc.	

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Security Vulnerabilities	Physical Hardening of Critical Infrastructure	
Cyber Security	Increased Awareness and protective measures for critical infrastructure	

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Brooke Bowman | Title: Community Resilience Coordinator

Jurisdiction: Lancaster County | Email: brbowman@lancastercountypa.gov

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	Goal 1 is in the 2019 plan. Objective 1.1 and 1.2 are relevant to the municipal levels because PA is a Commonwealth.
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	Goal 2 is in the 2019 plan. Objectives 2.2 and 2.3 are repetitive. I would argue that a flood-prone area is considered a hazard area. Objective 2.4 is applicable to municipalities and water authorities.
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	Goal 3 is in the 2019 plan.
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goals and Objectives		Comments
Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	Goal 4 is in the 2019 plan. Objective 4.5 is applicable to municipalities. Our objective would be to encourage municipalities to talk to their residents.
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.	X					
LC-3	Action 3	Elevate structures at risk of flooding.	X					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	X					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	X					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.		X				
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	X					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.			X			
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.			X			
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.			X			

Capability Assessment Survey

Name: Brooke Bowman **Title:** Community Resilience Coordinator

Jurisdiction: Lancaster County **Email:** Brbowman@lancastercountypa.gov

Phone Number: 717-664-1340

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**x**	**1/1/2019**		**County DPS**	**2019 in place, 2024 plan in development**
Emergency Operations Plan	**x**	**3/1/2024**		**County DPS**	
Disaster Recovery Plan			**x**	**County DPS**	
Evacuation Plan			**x**	**County DPS**	
Continuity of Operations Plan	**x**	**1/1/2008**		**County Government**	
NFIP				**County Planning Department**	
NFIP – Community Rating System				**County Planning Department**	
Floodplain Regulations				**County Planning Department**	
Floodplain Management Plan				**County Planning Department**	

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Zoning Regulations				**County Planning Department**	
Subdivision Regulations	**x**	**4/17/2017**		**County Planning Department**	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)			**x**	**County Planning Department**	**"Places 2040" Plan**
Open Space Management Plan (or Parks/Rec or Greenways Plan)				**County Parks & Rec Department**	
Stormwater Management Plan / Ordinance			**x**	**County Planning Department**	**Started July 2024**
Natural Resource Protection Plan	**x**			**Lancaster County Conservation District**	
Capital Improvement Plan	**x**	**1/26/2022**		**Budget Services**	
Economic Development Plan	**x**			**County Planning Department**	
Historic Preservation Plan	**x**			**Historical Preservation Trust**	
Farmland Preservation	**x**			**Agricultural Preservation**	
Building Code	**x**	**2/14/2022**		**County Government**	**2018 ICC**
Fire Code				**County Government**	
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	x		County Planning Department	
Planners or engineers (with natural and/or human caused hazards knowledge)	x		County Dept. of Public Safety	
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	x		County Facilities Management	
Emergency Manager	x		County Dept. of Public Safety	Each municipality is required to appoint an Emergency Management Coordinator
Floodplain Manager				
Land Surveyors	x		County GIS Department	
Scientists or staff familiar with the hazards of the community				
Personnel skilled in GIS and/or FEMA's HAZUS program	x		County GIS Department	
Grant writers or fiscal staff to handle large or complex grants	x		County Government	Multiple Departments
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming	x		Budget Services	
Community Development Block Grants (CDBG)		x		
Special Purpose Taxes		x		
Gas / Electric Utility Fees		x		
Water / Sewer Fees		x		
Stormwater Utility Fees		x		
Development Impact Fees		x		
General Obligation, Revenue, and/or Special Tax Bonds		x		
Partnering Arrangements or Intergovernmental Agreements	x		County Solicitor	
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		x		
StormReady certification	x		County Department of Public Safety	Recertified September 2024
Natural disaster or safety related school programs	x			DPS serves on school safety committees. Working on a county-wide safe schools collaborative. DPS has started a County Wide Safe Schools Collaborative in collaboration with the Lancaster-Lebanon IU13. Meetings starting in 2025.
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	x		County Department of Public Safety	
Public-private partnership initiatives addressing disaster-related issues	x		County Department of Public Safety	
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	x			Not run by a county organization. These groups exist within the community.
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability		x	
Administrative and Technical Capability			x
Financial Capability		x	
Education and Outreach			x

Adamstown Borough

Mitigation Strategy 5-Year Mitigation Plan Review

Name: John Schmidt | Title: Mayor/Deputy EMC

Jurisdiction: Adamstown Borough | Email: mayor.adamstown@gmail.com

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Statusno					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	No Progress					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.		Not yet completed				
LC-3	Action 3	Elevate structures at risk of flooding.	No Progress					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	No Progress					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	Unknown					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	No Progress					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	No Progress					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.			Continuous			
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.		In Progress				

Existing Mitigation Action			Statusno					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.			ContinuoiusC			

Akron Borough

Hazard Identification and Risk Evaluation Worksheet

Name: Sean Molchany Title: Manager / Zoning Officer

Jurisdiction: Akron Borough Email: molchanye akron-PA.com

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	I	
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☒ Extreme Temperature
- ☒ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☒ Lightning Strike

Human-Caused

- ☒ Building and Structure Collapse
- ☒ Civil Disturbance
- ☒ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☒ Opioid Addiction
- ☒ Terrorism
- ☒ Urban Fire/Explosion

Additional Comments:

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Sean Molchany Title: Manager/Zoning Officer

Jurisdiction: Akron Borough Email: molchany@akron-pa.com

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Y	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	Y	
c. Does the municipality support requests for map updates?	If yes, specify how.	Y	
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	Y	
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	N	
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	Y	Manager

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	Y	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	Y	MANAGER
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	Y	MANAGER
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Y	MANAGER
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	N	
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	Y	VIOLATION LETTER
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	N	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	N	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	Y	MEETINGS
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	N	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	Source of Information	Comments
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	
Is the floodplain management an auxiliary function?	Community FPA	
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	
What are the barriers to running an effective NFIP program in the community?	Community FPA	
Compliance History		
Topic	Source of Information	Comments
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	
Are there any outstanding compliance issues (i.e., current violations)?		
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Capability Assessment Survey

Name: Sean Molchany

Title: Manager / Zoning Officer

Jurisdiction: Akron Borough

Email: Molchany@akron-pa.com

Phone Number: 717-859-1600

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	X	2019			
Emergency Operations Plan	X		X	Akron Borough	EOP in process of being updated Expected to be adopted 8/2024
Disaster Recovery Plan	X		X	"	"
Evacuation Plan	X		X	"	"
Continuity of Operations Plan	X		X	"	"
NFIP					
NFIP – Community Rating System					
Floodplain Regulations	X	6/2023		Akron Borough	
Floodplain Management Plan	X	6/2023		"	
Zoning Regulations	X	6/2023		"	

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
Subdivision Regulations	X	12/2017		AKRON	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	X	2017		"	
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance	X	12/2017		"	
Natural Resource Protection Plan					
Capital Improvement Plan	X	Yearly		"	
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation					
Building Code	X	2012		"	
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X		Admin / Akron Borough	
Planners or engineers (with natural and/or human caused hazards knowledge)	X		Admin/ Akron Borough	
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		Admin /Akron Borough	
Emergency Manager				
Floodplain Manager	X		Admin / Akron Borough	
Land Surveyors		X		
Scientists or staff familiar with the hazards of the community	X		Admin/Akron Borough	
Personnel skilled in GIS and/or FEMA's HAZUS program	X		Admin/ Akron Borough	
Grant writers or fiscal staff to handle large or complex grants	X		Admin /Akron Borough	
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming	X		Admin	
Community Development Block Grants (CDBG)		X		
Special Purpose Taxes		X		
Gas / Electric Utility Fees		X		
Water / Sewer Fees	X			
Stormwater Utility Fees	X			
Development Impact Fees	X			
General Obligation, Revenue, and/or Special Tax Bonds				
Partnering Arrangements or Intergovernmental Agreements		X		
Other		X		

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification		X		
Natural disaster or safety related school programs		X		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)		X		
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		X		
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability			X
Administrative and Technical Capability			X
Financial Capability			X
Education and Outreach		X	

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Sean Molchany Title: Manager / Zoning officer

Jurisdiction: Akron Borough Email: molchany@akron-pa.com

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Y	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	Y	
c. Does the municipality support requests for map updates?	If yes, specify how.	Y	
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	EU	
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	N	
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	.	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	Y	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	Y	
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	Y	
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Y	
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	Y	
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	Y	
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	N	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	N	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	Y	
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	N	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	Source of Information	Comments
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	
Is the floodplain management an auxiliary function?	Community FPA	
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	
What are the barriers to running an effective NFIP program in the community?	Community FPA	
Compliance History		
Topic	Source of Information	Comments
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	
Are there any outstanding compliance issues (i.e., current violations)?		
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Sean Molchany

Title: Manager / Zoning officer

Jurisdiction: Akron Borough

Email: molchany@akron-pa.com

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goals and Objectives		Comments
Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.	X					
LC-3	Action 3	Elevate structures at risk of flooding.	X					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	X					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	X					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	X					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	X					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	X					
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.	X					
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.			X			

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com)

Jurisdiction: Akron Boro

Name/Title of Individual Completing Worksheet: Howard, EMC

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Same	They happen to other agencies
Dam Failure	Low	Same	None
Drought	Medium	Same	Lack of precip
Earthquake	Low	Same	
Environmental Hazards: Gas and Pipeline	Medium	Same	
Environmental Hazards: Hazardous Materials	Medium	Same	
Flood, Flash Flood, Ice Jam	High	Same	
Hailstorm	Medium	Same	
Invasive Species	Medium	Same	
Nuclear Incident	Medium	Low	Not in 10 mile
Pandemic and Infectious Disease	Medium	Same	
Radon Exposure	High	Same	
Subsidence, Sinkhole	High	Same	
Substance Use Disorder and Mental Health	Medium	Same	
Terrorism	Medium	Same	
Tornado, Windstorm	Medium	Same	
Transportation Accident	High	Same	
Utility Interruption	High	Same	
Wildfire	Medium	Same	
Winter Storm	Medium	Same	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Akron Borough

Name/Title of Individual Completing Worksheet: Howard, EMC

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Lack of back up Admin Building	Find a suitable location or have a plan to work remotely.	Cyber Incidents, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
NA		

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
NA		

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Roadway flooding	Redesign areas prone to flooding or put in flood gates	Flood

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Winter Storm and road conditions	Have PW treat roadways before and plow snow during and after	Winter Storm

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Roadway flooding	Redesign areas prone to flooding or put in flood gates	Flood

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
NA		

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed
NA		

Bart Township

Hazard Identification and Risk Evaluation Worksheet

Name: Michael F. Hoover

Title: Emergency Management Coordinator

Jurisdiction: Bart Township, Lancaster County, PA

Email: BartEMC@comcast.net

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	NC	
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- X Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- X Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- X Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- X Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Cathy Snyder **Title:** Secretary/Treasurer

Jurisdiction: Bart Township **Email:** barttwp@comcast.net

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	No	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	No	
c. Does the municipality support requests for map updates?	If yes, specify how.	No	
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	No	
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	No	
f. Does the municipality maintain a record of approved letters of Map Change?	If yes, specify the responsible office.	No	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	Yes	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	Yes	Solanco Engineering Associates LLC
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	Yes	Solanco Engineering Associates LLC
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Yes	Solanco Engineering Associates LLC
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	Yes	Solanco Engineering Associates LLC
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	Yes	Solanco Engineering Associates LLC
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	No	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	No	

3. FLOOD INSURANCE			
Requirement	***Recommended Action***	***Yes/No***	***Comments***
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	No	
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	No	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	
Is the floodplain management an auxiliary function?	Community FPA	
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	
What are the barriers to running an effective NFIP program in the community?	Community FPA	
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	
Are there any outstanding compliance issues (i.e., current violations)?		
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Capability Assessment Survey

Name: Cathy Snyder **Title:** Secretary/Treasurer

Jurisdiction: Bart Township **Email:** barttwp@comcast.net

Phone Number: 717-786-2877

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**X**	**3/2019**		**Lancaster Co. EMA**	**We piggyback on the County HMP**
Emergency Operations Plan	**X**	**1/2011**		**Bart Twp. EMA**	
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan	**X**	**1/2011**		**Bart Twp. EMA**	
NFIP					
NFIP – Community Rating System					
Floodplain Regulations					
Floodplain Management Plan	**X**	**3/2016**		**Board of Supervisors**	
Zoning Regulations	**X**	**12/2008**		**Board of Supervisors**	

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
Subdivision Regulations	X	4/2016		Board of Supervisors	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	X	9/2022		Board of Supervisors	Southern Lancaster County Comprehensive Plan
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance	X	5/2014		Board of Supervisors	
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation	X			Lancaster Farmland Trust	
Building Code	X			Uniform Construction Code	
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X		Zoning Officer	Solanco Engineering Associates
Planners or engineers (with natural and/or human caused hazards knowledge)		X		
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		Township Engineer	Solanco Engineering Associates
Emergency Manager	X		Emergency Management Coordinator	Michael Hoover
Floodplain Manager	X		Township Engineer	Solanco Engineering Associates
Land Surveyors		X		
Scientists or staff familiar with the hazards of the community		X		
Personnel skilled in GIS and/or FEMA's HAZUS program		X		
Grant writers or fiscal staff to handle large or complex grants		X		
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming		X		
Community Development Block Grants (CDBG)		X		
Special Purpose Taxes		X		
Gas / Electric Utility Fees		X		
Water / Sewer Fees		X		
Stormwater Utility Fees		X		
Development Impact Fees		X		
General Obligation, Revenue, and/or Special Tax Bonds		X		
Partnering Arrangements or Intergovernmental Agreements		X		
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification		X		
Natural disaster or safety related school programs	X		Solanco School District	Annual severe weather drill
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	X		Bart Township Fire Company	Annual Fire prevention program at Bart-Colerain Elementary School and Parochial Schools in Bart Twp.
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		X		
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability	X		
Administrative and Technical Capability	X		
Financial Capability	X		
Education and Outreach	X		

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Michael F. Hoover

Title: Emergency Management Coordinator

Jurisdiction: Bart Twp

Email: BartEMC@comcast.net

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

	Goals and Objectives	Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.	X					
LC-3	Action 3	Elevate structures at risk of flooding.	X					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	X					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	X					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	X					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	X					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	X					
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.	X					
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local	X					

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
		regulations to protect new structures constructed in hazard-prone areas.						

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com)

Jurisdiction: Bart Township

Name/Title of Individual Completing Worksheet: Michael F. Hoover, Emergency Management Coordinator

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Y	
Dam Failure	Low	Y	
Drought	Medium	Y	
Earthquake	Low	Y	
Environmental Hazards: Gas and Pipeline	Medium	Y	
Environmental Hazards: Hazardous Materials	Medium	Y	
Flood, Flash Flood, Ice Jam	High	Y	
Hailstorm	Medium	Y	
Invasive Species	Medium	Y	
Nuclear Incident	Medium	Y	
Pandemic and Infectious Disease	Medium	Y	
Radon Exposure	High	Y	
Subsidence, Sinkhole	High	Y	
Substance Use Disorder and Mental Health	Medium	Y	
Terrorism	Medium	Y	
Tornado, Windstorm	Medium	Y	
Transportation Accident	High	Y	
Utility Interruption	High	Y	
Wildfire	Medium	Y	
Winter Storm	Medium	Y	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Bart Township

Name/Title of Individual Completing Worksheet: Michael F. Hoover, Emergency Management Coordinator

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Brecknock Township

Hazard Identification and Risk Evaluation Worksheet

Name: Andrew Baum **Title:** Roadmaster

Jurisdiction: Brecknock Township **Email:** brecknocktwprm@brecknocktownship.us

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	I	Increased frequency of 2+in rainfalls
Hailstorms	NC	
Invasive Species	I	Spotted Lantern Fly
Pandemic	NC	
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	I	Increase in population in the Township
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☒ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☒ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☒ Terrorism
- ☒ Urban Fire/Explosion

Additional Comments:

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Andy Baum **Title:** Roadmaster/Supervisor

Jurisdiction: Brecknock Township **Email:** brecknocktwprm@brecknocktownship.us

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Yes	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	Unknown	
c. Does the municipality support requests for map updates?	If yes, specify how.	Yes & No	Depends on the reason for update
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	Yes & No	We don't really have any but if information would come to our attention we would
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	No	
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	Yes	Brecknock Township

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	Yes	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	Yes	Brecknock Township will issue permits if it is allowed in flood plains
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	Yes	Brecknock Township
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Yes	Brecknock Township
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	Yes	Brecknock Township
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	Yes	Our code enforcement officer issue a NOV and gives them a certain amount of time to correct it
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	No	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	No	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	No	
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.		

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	
Is the floodplain management an auxiliary function?	Community FPA	
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	
What are the barriers to running an effective NFIP program in the community?	Community FPA	
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	
Are there any outstanding compliance issues (i.e., current violations)?		
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Capability Assessment Survey

Name: Andrew Baum

Title: Roadmaster

Jurisdiction: Brecknock Township

Email: brecknocktwprm@brecknocktownship.us

Phone Number: 717-445-5933

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan					
Emergency Operations Plan	X	11-11-14			
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan	X	11-11-14			
NFIP	X				
NFIP – Community Rating System	X				
Floodplain Regulations	X	4-12-2005		Brecknock Township	
Floodplain Management Plan	X	3-8-2016		Brecknock Township	
Zoning Regulations	X				Date varies cause zoning regulations were adopted at different times. Not all at the same time

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Subdivision Regulations	X	4-9-2013		Brecknock Township	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	X			Brecknock Township	
Open Space Management Plan (or Parks/Rec or Greenways Plan)	X			Brecknock Township	
Stormwater Management Plan / Ordinance	X	3-14-2006		Brecknock Township	
Natural Resource Protection Plan	X				
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation	X				
Building Code	X				
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)		X		
Planners or engineers (with natural and/or human caused hazards knowledge)		X		
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X			
Emergency Manager	X		Brecknock Township	
Floodplain Manager	X		Brecknock Township	
Land Surveyors		X		
Scientists or staff familiar with the hazards of the community		X		
Personnel skilled in GIS and/or FEMA's HAZUS program		X		
Grant writers or fiscal staff to handle large or complex grants		X		
Other		X		

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming		X		
Community Development Block Grants (CDBG)		X		
Special Purpose Taxes		X		
Gas / Electric Utility Fees		X		
Water / Sewer Fees		X		
Stormwater Utility Fees		X		
Development Impact Fees		X		
General Obligation, Revenue, and/or Special Tax Bonds		X		
Partnering Arrangements or Intergovernmental Agreements		X		
Other		X		

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification		X		
Natural disaster or safety related school programs		X		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)		X		
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		X		
Other		X		

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability	X		
Administrative and Technical Capability	X		
Financial Capability	X		
Education and Outreach			

Caernarvon Township

Hazard Identification and Risk Evaluation Worksheet

Name: Kathryn Norris Title: Secretary/Treasurer

Jurisdiction: Caernarvon Twp Email: knorris@caernarvonlancaster.org

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	Last 5 yrs Only
Hailstorms	NC	
Invasive Species	I	Spotted Lantern Fly
Pandemic	I	COVID
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	D	Last two yrs
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☑ Extreme Temperature
- ☑ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☑ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☑ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☑ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Kathryn Norris

Title: Secretary/Treasurer

Jurisdiction: Caernarvon Twp.

Email: knorris@caernarvonlancaster.org

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Y	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	N	
c. Does the municipality support requests for map updates?	If yes, specify how.	N	
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	N	
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	Y	Through zoning
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	Y	Secretary/Treasurer

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.		

2. FLOODPLAIN MANAGEMENT			
Requirement	**Recommended Action**	**Yes/No**	**Comments**
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	Y	Zoning Officer
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	Y	We have not had any SALDO projects meeting that criteria.
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Y	Engineer, Zoning Officer, Conservation District (LCCD)
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	Y	Using FIRM Maps
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	N	
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	N	

3. FLOOD INSURANCE			
Requirement	**Recommended Action**	**Yes/No**	**Comments**
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	Y	When requested

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	N	
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	Y	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	NO
Is the floodplain management an auxiliary function?	Community FPA	Yes
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Engineer
What are the barriers to running an effective NFIP program in the community?	Community FPA	None
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	Yes
Are there any outstanding compliance issues (i.e., current violations)?		None that we are aware of
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		NO
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	Both
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	Not sure
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	contact Engineer & FEMA
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	Not sure
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	None that we are aware of
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	Depends on the event
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	Uncertain
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	NO
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	N/A
What categories and activities provide CRS points and how can the class be improved?		FIRM Maps
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	FIRM Maps

Capability Assessment Survey

Name: Kathryn Norris

Title: Secretary/Treasurer

Jurisdiction: Caernarvon Twp

Email: knorris@caernarvonlancaster.org

Phone Number: 717-445-4244

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	X				
Emergency Operations Plan	X				
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan					
NFIP	X				
NFIP – Community Rating System					
Floodplain Regulations	X				As prescribed by FEMA, DEP & LCCD
Floodplain Management Plan	X				
Zoning Regulations	X			Zoning Officer	

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
Subdivision Regulations	X			Engineer	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	X			Planning Commission	
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance	X			Engineer	
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation	X				
Building Code	X			Supervisors	
Fire Code	X			UCC	
Other				UCC	

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)		X		
Planners or engineers (with natural and/or human caused hazards knowledge)	X			
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X			
Emergency Manager	X			
Floodplain Manager	X			
Land Surveyors		X		
Scientists or staff familiar with the hazards of the community		X		
Personnel skilled in GIS and/or FEMA's HAZUS program	X			
Grant writers or fiscal staff to handle large or complex grants		X		
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming		X		
Community Development Block Grants (CDBG)		X		
Special Purpose Taxes		X		
Gas / Electric Utility Fees		X		
Water / Sewer Fees		X		
Stormwater Utility Fees		X		
Development Impact Fees		X		
General Obligation, Revenue, and/or Special Tax Bonds		X		
Partnering Arrangements or Intergovernmental Agreements		X		
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification		X		
Natural disaster or safety related school programs		X		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	X			
Public-private partnership initiatives addressing disaster-related issues	X		Roads	
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		X		
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability	X		
Administrative and Technical Capability		X	
Financial Capability		X	
Education and Outreach	X		

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Kathryn Norris Title: Secretary/Treasurer

Jurisdiction: Caernarvon Twp. Email: knorris@caernarvonlancaster.org

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

	Goals and Objectives	Comments
Goal 1	**Prevent injury/death and damage from natural and human-made hazards in Lancaster County.**	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	**Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.**	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	**Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.**	2.5 Apply lessen learned from covid
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	**Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.**	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	**Improve and maintain stormwater management systems to reduce backup and flooding.**	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	**Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.**	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	**Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.**	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goals and Objectives		Comments
Goal 4	**Increase public education and awareness of existing and potential hazards in Lancaster County.**	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	**Educate property owners in hazard risk areas regarding their risks and the precautions they can take.**	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	**Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).**	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective	None	
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.			X			
LC-3	Action 3	Elevate structures at risk of flooding.			X			
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	X					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	X					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	X					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	X					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	X					
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.	X					
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.			X			

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Caernarvon Township, Lancaster County

Name/Title of Individual Completing Worksheet: Terry Martin- Township Supervisors/Roadmaster

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Fire Company	Propane Generator	Loss of power
Township Building	Propane Generator	Loss of power
Township Garage	Propane Generator	Loss of power

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Fire Company	Propane Generator	Loss of Power
Township Office	Propane Generator	Loss of Power
Township Garage	Propane Generator	Loss of Power

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Boot Jack Road	Plan to install Larger Culverts	Flooding

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
No repetitive Loss areas at this time.		

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Blowing & Drifting Snow	Consider snow fence on additional township roads and on State Roads	

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Amish-Mennonite Community	Considering Savy Citizen	Reaching
Emergency Communication	Speed communication from residents to communities without internet in homes	

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Rapid Awareness to communities without internet & phones	Encourage Rapid Community communications	Awareness

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Cyber Attacks	Additional "Clouds" cyber insurance	Cyber Security

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com)

Jurisdiction: Caernarvon Township, Lancaster Co.

Name/Title of Individual Completing Worksheet: Terry Martin- Township Supervisor/Roadmaster

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Y	
Dam Failure	Low	Y	
Drought	Medium	Y	
Earthquake	Low	Y	
Environmental Hazards: Gas and Pipeline	Medium	Y	
Environmental Hazards: Hazardous Materials	Medium	Y	
Flood, Flash Flood, Ice Jam	High	Y	
Hailstorm	Medium	Y	
Invasive Species	Medium	Y	
Nuclear Incident	Medium	Y	
Pandemic and Infectious Disease	Medium	Y	
Radon Exposure	High	Y	
Subsidence, Sinkhole	High	Y	
Substance Use Disorder and Mental Health	Medium	Y	
Terrorism	Medium	Y	
Tornado, Windstorm	Medium	Y	
Transportation Accident	High	Y	
Utility Interruption	High	Y	
Wildfire	Medium	Y	
Winter Storm	Medium	Y	

Christiana Borough

Hazard Identification and Risk Evaluation Worksheet

Name: Bobbi Maser **Title:** Borough Manager

Jurisdiction: Borough of Christiana **Email:** manager@christianaboro.org

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	NC	
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Capability Assessment Survey

Name: Bobbi Maser **Title:** Borough Manager

Jurisdiction: Borough of Christiana **Email:** manager@christianaboro.org

Phone Number: 610-593-5199

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**X**				**Under County**
Emergency Operations Plan	**X**				
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan					
NFIP	**X**				
NFIP – Community Rating System					
Floodplain Regulations	**X**				
Floodplain Management Plan	**X**				

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Zoning Regulations	X	1/3/2012			
Subdivision Regulations	X	8/4/2015			
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	X	12/7/04			
Open Space Management Plan (or Parks/Rec or Greenways Plan)	X				
Stormwater Management Plan / Ordinance	X	5/6/2014			
Natural Resource Protection Plan					
Capital Improvement Plan	X				
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation					
Building Code	X	6/23/04			
Fire Code	X				
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X		Borough Engineer	
Planners or engineers (with natural and/or human caused hazards knowledge)	X		Borough Engineer	
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		Arro Consulting/Caste Valley Consultants	
Emergency Manager	X		Alexander Traynor	
Floodplain Manager	X			
Land Surveyors	X			
Scientists or staff familiar with the hazards of the community		X		
Personnel skilled in GIS and/or FEMA's HAZUS program	X			
Grant writers or fiscal staff to handle large or complex grants	X		GMS Funding Solutions	
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming		X		
Community Development Block Grants (CDBG)		X		
Special Purpose Taxes		X		
Gas / Electric Utility Fees		X		
Water / Sewer Fees	X		Christiana Borough	
Stormwater Utility Fees		X		
Development Impact Fees	X			
General Obligation, Revenue, and/or Special Tax Bonds		X		
Partnering Arrangements or Intergovernmental Agreements	X			
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification		X		
Natural disaster or safety related school programs		X		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)		X		
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		X		
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability	X		
Administrative and Technical Capability	X		
Financial Capability	X		
Education and Outreach	X		

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Bobbi Maser **Title:** Borough Manager

Jurisdiction: Borough of Christiana **Email:** manager@christianaboro.org

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.		
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.		
c. Does the municipality support requests for map updates?	If yes, specify how.		
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	No	
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	No	
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.		

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	Yes	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.		
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.		
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.		
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	No	
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.		
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	No	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	No	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	No	
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	No	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	
Is the floodplain management an auxiliary function?	Community FPA	
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	
What are the barriers to running an effective NFIP program in the community?	Community FPA	
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	
Are there any outstanding compliance issues (i.e., current violations)?		
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Bobbi Maser | Title: Borough Manager

Jurisdiction: Christiana B | Email: manager@christianaboro.org

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	No					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.	No					
LC-3	Action 3	Elevate structures at risk of flooding.	No					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	No					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	No					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	unknown					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	unknown					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	unknown					
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.	unknown					

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.	unknown					

Clay Township

Hazard Identification and Risk Evaluation Worksheet

Name: Bruce R. Leisey **Title:** Township Manager

Jurisdiction: Clay Township (Lancaster County) **Email:** bruce@claytwp.com

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	nc	
Earthquake	nc	
Flood, Flash Flood, Ice Jam	nc	
Hailstorms	nc	
Invasive Species	nc	
Pandemic	nc	
Radon Exposure	nc	
Subsidence and Sinkholes	nc	
Tornado and Windstorm	nc	
Wildfire	nc	
Winter Storm	nc	
Human-Caused Hazards		
Dam Failure	nc	
Environmental Hazards (Hazmat)	nc	
Nuclear Incidents	nc	
Transportation Accidents	nc	
Utility Interruption	nc	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- x Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Capability Assessment Survey

Name: Bruce Leisey **Title:** Township Manager

Jurisdiction: Clay Township (Lancaster County) **Email:** bruce@claytwp.com

Phone Number: 717-733-9675

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**X**			**LEMA**	**Under Review**
Emergency Operations Plan	**X**	**03/2017**		**Clay Twp. EMA**	
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan					
NFIP	**X**	**2016**		**FEMA**	**New Maps Developed by FEMA**
NFIP – Community Rating System	**X**	**2016**		**FEMA**	**New Maps Developed by FEMA**
Floodplain Regulations	**X**	**2016**		**Township Supervisors**	
Floodplain Management Plan	**X**	**2016**			
Zoning Regulations	**X**	**2016**		**Township Supervisors**	

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Subdivision Regulations-	**X**	**2014**		**Township Supervisors**	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	**X**	**1995**		**Township Supervisors**	
Open Space Management Plan (or Parks/Rec or Greenways Plan)	**X**	**2001**		**Township Supervisors**	
Stormwater Management Plan / Ordinance	**X**	**2022**		**Township Supervisors**	
Natural Resource Protection Plan	**X**	**1995**			**Included in Comp Plan**
Capital Improvement Plan	**X**	**2024**			**Capital Plan for Public Works and all Infrastructure**
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation					
Building Code	**X**	**3/2019**			
Fire Code	**X**	**3/2019**			
Ephrata Area Wastewater Plan (Act 537)	**X**	**1995**			

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X		Clay Township Planning Commission	
Planners or engineers (with natural and/or human caused hazards knowledge)	X		Hanover Engineering	subcontracted
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		Hanover Engineering, Associated Building Inspections, Commonwealth Code Inspections	subcontracted
Emergency Manager	X		Clay Township EMA	
Floodplain Manager	X		Clay Township Zoning Officer	
Land Surveyors	X		Hanover Engineering	
Scientists or staff familiar with the hazards of the community	X		Hanover Engineering	
Personnel skilled in GIS and/or FEMA's HAZUS program	X		Hanover Engineering	
Grant writers or fiscal staff to handle large or complex grants	X		Hanover Engineering	
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming	X		Township Staff	
Community Development Block Grants (CDBG)	X		Township Staff	
Special Purpose Taxes		X		
Gas / Electric Utility Fees		X		
Water / Sewer Fees	X		Township Staff	Sewer Only
Stormwater Utility Fees		X		
Development Impact Fees		X		
General Obligation, Revenue, and/or Special Tax Bonds		X		
Partnering Arrangements or Intergovernmental Agreements		X		
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification	X		Lancaster County EMA	
Natural disaster or safety related school programs		X		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	X		Township Staff	Environmental education relating to storm water
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	X		Local Fire Companies and Ambulance Associations	
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability		X	
Administrative and Technical Capability		X	
Financial Capability			X
Education and Outreach		X	

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Bruce R. Leisey **Title:** Township Manager

Jurisdiction: Clay Township (Lancaster County) **Email:** bruce@claytwp.com

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	yes	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	yes	3/22/2016
c. Does the municipality support requests for map updates?	If yes, specify how.		
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.		
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.		
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	yes	Township Municipal Office

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	yes	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	yes	
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	yes	Zoning Office
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	yes	Zoning Office
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	yes	Zoning Office
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	yes	Through Building Permits and Land Development Planning
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	no	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	no	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.		
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.		

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	
Is the floodplain management an auxiliary function?	Community FPA	
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	
What are the barriers to running an effective NFIP program in the community?	Community FPA	
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	
Are there any outstanding compliance issues (i.e., current violations)?	no	
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Bruce R. Leisey | Title: Township Manager

Jurisdiction: Clay Township (Lancaster County) | Email: bruce@claytwp.com

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	Led by FEMA
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	Collaboration between Township Staff and Emergency Service Providers
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goals and Objectives		Comments
Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	Emergency Service Providers
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.						
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.						
LC-3	Action 3	Elevate structures at risk of flooding.						
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.						
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.						
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.						
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.						
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.						
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.						
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.						

Colerain Township

Hazard Identification and Risk Evaluation Worksheet

Name: Carmen Wiker **Title:** Secretary/Treasurer

Jurisdiction: Colerain Township **Email:** colerain@epix.net

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	I	Spotted Lanternfly
Pandemic	NC	
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

x Coastal Erosion
x Extreme Temperature
x Hurricane, Tropical Storm, Nor'easter
☐ Landslide
x Lightning Strike

Human-Caused

☐ Building and Structure Collapse
x Civil Disturbance
x Cyber Terrorism
☐ Environmental Hazards – Coal Mining
☐ Environmental Hazards – Conventional Oil/Gas Wells
☐ Environmental Hazards – Gas and Liquid Pipelines
☐ Environmental Hazards – Unconventional Oil/Gas Wells
☐ Levee Failure
Mass Food/Animal Feed Contamination
X Opioid Addiction
X Terrorism
☐ Urban Fire/Explosion

Additional Comments:

Capability Assessment Survey

Name: Carmen Wiker **Title:** Secretary/Treasurer

Jurisdiction: Colerain Township **Email:** colerain@epix.net

Phone Number: 717-529-2570

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan					
Emergency Operations Plan	**x**	**6/2003**		**Colerain Township**	
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan					
NFIP					
NFIP – Community Rating System					
Floodplain Regulations	**x**	**3/16/2016**		**Colerain Township**	
Floodplain Management Plan					
Zoning Regulations	**X**	**8/7/2023**		**Colerain Township**	

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Subdivision Regulations	X	3/20/2019		Colerain Township	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	x	2/6/2023		Joint	Christiana & Quarryville Boroughs, Bart, Drumore, Eden, Little Britain, Martic, Providence and Sadsbury Townships
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance	X	5/5/2014		Colerain Township	
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation	X			See Comments	Lancaster Farmland Trust, Brandywine Conservancy, and Lancaster County Ag Preserve
Building Code	x				Currently working on adopting the 2018 Building Code
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	x		Planning Commission	Seven appointed members
Planners or engineers (with natural and/or human caused hazards knowledge)	X		Solanco Engineering	Appointed (Mark Deimler)
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		Solanco Engineering	Appointed BCO
Emergency Manager	X		Colerain Township	Wayne Brion, Appointed
Floodplain Manager	X		Solanco Engineering	
Land Surveyors		x		
Scientists or staff familiar with the hazards of the community		x		
Personnel skilled in GIS and/or FEMA's HAZUS program		x		
Grant writers or fiscal staff to handle large or complex grants		x		
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming		x		
Community Development Block Grants (CDBG)		x		
Special Purpose Taxes		x		
Gas / Electric Utility Fees		x		
Water / Sewer Fees		x		
Stormwater Utility Fees		x		
Development Impact Fees		x		
General Obligation, Revenue, and/or Special Tax Bonds		x		
Partnering Arrangements or Intergovernmental Agreements	x		Colerain, Eden, Bart and Sadsbury Townships	Shared Equipment Agreements, working on updating them
Other	x		Colerain & Quarryville Borough	Shared Equipment Agreement

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		x		
StormReady certification		x		
Natural disaster or safety related school programs		x		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)		x		
Public-private partnership initiatives addressing disaster-related issues		x		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		x		
Other		x		

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability		x	
Administrative and Technical Capability		x	
Financial Capability	x		
Education and Outreach	x		

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Mark Deimler, PE, BCO **Title:** Zoning Officer

Jurisdiction: Colerain Township **Email:** mark@solancoengineering.com

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Yes	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	Yes	
c. Does the municipality support requests for map updates?	If yes, specify how.	Yes	Aids resident with understanding process
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	N/A	
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	Yes	Communication with Residents
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.		

2. FLOODPLAIN MANAGEMENT			
Requirement	***Recommended Action***	***Yes/No***	***Comments***
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	Yes	
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	Yes	Zoning Office
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	Yes	Zoning Office
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Yes	Zoning Office
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	Yes	Zoning Office
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	Yes	Via Notices of Violation Issued by Zoning Officer
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	Yes	All listed except CRS

3. FLOOD INSURANCE			
Requirement	***Recommended Action***	***Yes/No***	***Comments***
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	Yes	Website
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	Yes	USPS Mailing
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	No	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	No
Is the floodplain management an auxiliary function?	Community FPA	NO
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Zoning officer verifies compliance with all building and zoning permits issues.
What are the barriers to running an effective NFIP program in the community?	Community FPA	None
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	Yes
Are there any outstanding compliance issues (i.e., current violations)?		No

When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book
Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	Both
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	Meet FEMA Requirements via DCED/FEMA Template with Zoning Ordinance Amendment
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	Zoning Officer reviews all zoning/building permits for compliance
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	Unknown
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	Unknown
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	Unknown
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	Unknown
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	Unknows
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Carmen Wiker | Title: Secretary/Treasurer

Jurisdiction: Colerain Twp | Email: colerain@epix.net

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	We are currently looking into increasing our donations to all emergency services. This will allow them to meet all objectives.
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	x					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.	x					
LC-3	Action 3	Elevate structures at risk of flooding.	x					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	x					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	x					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	x					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	x					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	x					
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.	x					
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local			x			

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
		regulations to protect new structures constructed in hazard-prone areas.						

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com)

Jurisdiction: Colerain Township

Name/Title of Individual Completing Worksheet: Carmen B.Wiker

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Y	
Dam Failure	Low	Y	
Drought	Medium	Y	
Earthquake	Low	Y	
Environmental Hazards: Gas and Pipeline	Medium	N	
Environmental Hazards: Hazardous Materials	Medium	Y	
Flood, Flash Flood, Ice Jam	High	Y	
Hailstorm	Medium	Y	
Invasive Species	Medium	Y	
Nuclear Incident	Medium	Y	
Pandemic and Infectious Disease	Medium	Y	
Radon Exposure	High	Y	
Subsidence, Sinkhole	High	N	
Substance Use Disorder and Mental Health	Medium	Y	
Terrorism	Medium	Y	
Tornado, Windstorm	Medium	Y	
Transportation Accident	High	Y	
Utility Interruption	High	Y	
Wildfire	Medium	Y	
Winter Storm	Medium	Y	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Colerain Township

Name/Title of Individual Completing Worksheet: Carmen B. Wiker

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Lack funding to replace old culverts	Receive grants	Flooding

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Wesley Road Bridge	Replace but Township lacks funding	Flooding
Morrison Mill Road Culvert	Will be replaced in 2025	Flooding

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Amish Community lack of technology	Possibly mail out mail out newsletter more often	Invasive Species, Radon exposure

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Columbia Borough

Hazard Identification and Risk Evaluation Worksheet

Name: JAY BARDINGER Title: EMC

Jurisdiction: COLUMBIA BOROUGH Email: JBardinger@columbiaPA.NET

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	I	
Earthquake	I	
Flood, Flash Flood, Ice Jam	RT 462 (900 block LANCASTER AVE) 1200 BLOCK LOCUST STREET	I
Hailstorms	I	
Invasive Species	I	
Pandemic	I	
Radon Exposure	I	
Subsidence and Sinkholes	I	
Tornado and Windstorm	I	SOUTH 4TH STREET 200 block
Wildfire	NC	
Winter Storm	D	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	I	BATTERIES
Nuclear Incidents	NC	
Transportation Accidents	I	ELECTRIC VEHICLES
Utility Interruption	I	LOCATION, AGE

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☒ Extreme Temperature
- ☒ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☒ Lightning Strike

Human-Caused

- ☒ Building and Structure Collapse
- ☒ Civil Disturbance
- ☒ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☒ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☒ Opioid Addiction
- ☒ Terrorism
- ☒ Urban Fire/Explosion

Additional Comments:

Capability Assessment Survey

Name: Jay Barninger/Mark Stivers

Title: Emergency Management Coord/ Borough Manager

Jurisdiction: Borough of Columbia

Email: jbarninger@columbiapa.net
mstivers@columbiapa.net

Phone Number: 717-992-2292

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**X**	**8/9/91**		**Borough of Columbia EMC**	**Updated in 2016, currently under review**
Emergency Operations Plan	**X**	**11/10/88**		**Borough of Columbia EMC**	**Updated in 2022**
Disaster Recovery Plan	**X**	**8/9/91**		**Borough of Columbia EMC**	**Updated in 2016, currently under review**
Evacuation Plan	**X**	**3/16/79**		**Borough of Columbia EMC**	**Updated in 2016, currently under review**
Continuity of Operations Plan	**X**	**6/8/89**		**Borough of Columbia**	**Updated in 2016, currently under review**
NFIP	**X**	**2/9/22**		**Borough of Columbia**	
NFIP – Community Rating System	**X**	**8/9/22**		**Borough of Columbia**	
Floodplain Regulations	**X**	**8/9/22**		**Borough of Columbia**	
Floodplain Management Plan	**X**	**11/10/88**		**Borough of Columbia**	**Updated in 2022**

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
Zoning Regulations	X	8/23/99		Borough of Columbia	Updated in 2016, currently under review
Subdivision Regulations	X	11/10/2014		Borough of Columbia	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	X	9/26/2023		Borough of Columbia	
Open Space Management Plan (or Parks/Rec or Greenways Plan)	X	05/2019		Borough of Columbia	
Stormwater Management Plan / Ordinance	X	8/9/2022		Borough of Columbia	
Natural Resource Protection Plan					
Capital Improvement Plan	X	Annual with Budget		Borough of Columbia	
Economic Development Plan	X	2015		Borough of Columbia CED C	2015 Targeted Economic Development and several minor plans
Historic Preservation Plan	X	5/13/2002		Borough of Columbia HARB	Federal and State Historic Register & Certified Local Government
Farmland Preservation	N/A	N/A			No farmland exists within the borough
Building Code	X			Borough of Columbia Zoning	Follow PA UCC Code adoption
Fire Code	X			Borough of Columbia Zoning & Fire Dept.	Follow PA UCC Code adoption
Other	X			Borough of Columbia Zoning	Adopted 1018 IMPC

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	**X**		**Administration**	
Planners or engineers (with natural and/or human caused hazards knowledge)	**X**		**CS Davidson – Borough Engineer**	
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	**X**		**Commonwealth Code and CS Davidson**	
Emergency Manager	**X**		**Jay Barninger, Borough Safety**	**Appointed EMC**
Floodplain Manager		**X**		
Land Surveyors	**X**		**CS Davidson – Borough Engineer**	
Scientists or staff familiar with the hazards of the community	**X**		**Contract with ECS – Mid - Atlantic**	
Personnel skilled in GIS and/or FEMA's HAZUS program	**X**		**CS Davidson – Borough Engineer**	
Grant writers or fiscal staff to handle large or complex grants	**X**		**Rettew – Appointed Grant Writers**	
Other	**X**		**Administration**	

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming	**X**		**Done with Annual Budget**	
Community Development Block Grants (CDBG)	**X**		**We apply annually via LCHRA**	
Special Purpose Taxes		**X**		
Gas / Electric Utility Fees		**X**		
Water / Sewer Fees		**X**		
Stormwater Utility Fees		**X**		
Development Impact Fees		**X**		
General Obligation, Revenue, and/or Special Tax Bonds	**X**		**In 2021 the Borough refinanced the 2016 GO Bond.**	
Partnering Arrangements or Intergovernmental Agreements	**X**		**Member of the LIMC**	
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification		X		
Natural disaster or safety related school programs		X		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	X		**Columbia Borough Fire Department**	
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		X		
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability		X	
Administrative and Technical Capability		X	
Financial Capability		X	
Education and Outreach	X		

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name:	**Jay Barninger/Mark Stivers**	**Title:**	**Emergency Management Coordinator/Borough Manager**
Jurisdiction:	**Borough of Columbia**	**Email:**	**jbarninger@columbiapa.net** **mstivers@columbiapa.net**

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	***Recommended Action***	***Yes/No***	***Comments***
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	No	Understand that this is currently being worked on in the borough
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	No	
c. Does the municipality support requests for map updates?	If yes, specify how.	Yes	Changes within the borough are available
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	No	Not informed how to do that
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	Yes	Will support and fulfill any requests made
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	Yes	Office of the Code Manager

2. FLOODPLAIN MANAGEMENT			
Requirement	***Recommended Action***	***Yes/No***	***Comments***
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	No	Currently being developed
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	Yes	Permits required for all development
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	No	Currently all large parcels are developed or controlled by the borough
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Yes	Codes Compliance Department
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	Yes	Codes Compliance Department
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	No	
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	Yes	Currently being considered

3. FLOOD INSURANCE			
Requirement	***Recommended Action***	***Yes/No***	***Comments***
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	Yes	Literature
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	No	
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	Yes	Will advocate for them and provide any need information

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	
Is the floodplain management an auxiliary function?	Community FPA	
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	
What are the barriers to running an effective NFIP program in the community?	Community FPA	
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	
Are there any outstanding compliance issues (i.e., current violations)?	No	

When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book
Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Jay Barninger

Title: Emergency Management Coordinator

Jurisdiction: Borough of Columbia

Email: jbarninger@columbiapa.net

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	Much progress has been made since the previous survey, based on historical events
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	Much progress has been made since the previous survey, based on historical events
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	Lancaster County is a leader in communications, emergency management, and hazardous materials mitigation and planning.
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	Lancaster County Emergency Management, PEMA, Lancaster County Fireman's Association, Lancaster County Police Chiefs and many other agencies within the county provide public education in many ways and forms.
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.			X			
LC-3	Action 3	Elevate structures at risk of flooding.	X					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	X					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.		X				
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.		X				
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.			X			
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.			X			
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.			X			
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local			X			

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
		regulations to protect new structures constructed in hazard-prone areas.						
ColB-1	Action 11	Improve stormwater drainage at 10th Street and Ridge Avenue.				X		
ColB-2	Action 12	Protect the Columbia Municipal Authority WWTP to the 0.2% annual chance flood level.					X	
ColB-3	Action 13	Provide information at the overlook regarding the potential for wildfires on the hill below, and how visitors can prevent them.			X			
ColB-4	Action 14	Install a backup generator that can power the entire Municipal Building.		X				

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com) by Friday, November 15

Jurisdiction: Columbia Borough, Lancaster County, Pennsylvania

Name/Title of Individual Completing Worksheet: Jay R. Barninger, Emergency Management Coordinator

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Y	
Dam Failure	Low	Y	
Drought	Medium	Y	
Earthquake	Low	Y	
Environmental Hazards: Gas and Pipeline	Medium	Y	Several gas and other pipelines within the borough and surrounding townships
Environmental Hazards: Hazardous Materials	Medium	Y	Rail, U.S. #30, PA Route #441, and PA Route #462
Flood, Flash Flood, Ice Jam	High	Y	Susquehanna River borders the Borough
Hailstorm	Medium	Y	
Invasive Species	Medium	Y	
Nuclear Incident	Medium	Y	Peach Bottom South and TMI North of Columbia
Pandemic and Infectious Disease	Medium	Y	
Radon Exposure	High	Y	
Subsidence, Sinkhole	High	Y	History of sinkhole issues
Substance Use Disorder and Mental Health	Medium	Y	Hands Across the Street, House of Hope
Terrorism	Medium	Y	Bridges, utilities and transportation
Tornado, Windstorm	Medium	Y	
Transportation Accident	High	Y	Rail, U.S. #30, PA Route #441, and PA Route #462
Utility Interruption	High	Y	Electric, Gas, Propane
Wildfire	Medium	Y	
Winter Storm	Medium	Y	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Borough of Columbia

Name/Title of Individual Completing Worksheet: Jay R. Barninger, Emergency Management Coordinator

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Outdated & weak ordinances, training and equipment for staff	Seek grants to contract for ordinance review and strengthening, training and equipment	Increased public safety & staff safety, increased knowledge for staff on community safety

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Lack of sites for mass evacuations with backup power	Design a backup generator for the school district assembly areas	Mass evacuation area with backup power needed for public safety in large scale events of any type

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Several areas throughout the borough have a lack of proper drainage during heavy rain	Design of better storm water runoff system	Safe travel of all forms and reduced flooding incidents in travel areas and occupied structures

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
River front properties can easily sustain flood damage during a large rain event/ ice jam due to the elevation	Design a prevention measure to increase the elevation, even if temporary during a weather event	Provides for safety & well-being of those who live and travel within the river front area

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
History of sinkholes within the borough	Geological study of the earth under the borough to establish areas that need addressed	This will protect lives, homes, utilities and roads that could be destroyed in an event

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Population of homeless persons	Provide shelter areas for all who need this	Safety & well-being for the weather elements and domestic terrorism

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Getting the residents to sign up for public safety alerts & devising a better system for alerting the borough of the hazards	Better reporting from the contractors when planned work, quicker notification from the emergency response agencies, designing a campaign to get residents signed up.	Better public awareness/notification of hazardous and/or congested areas to avoid. Provides for better notification of problems/areas to avoid or what to do in an emergency situation

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Lack of training for staff and community leaders	Federal & state leaders create and provide classes to help educate local leaders how to solve problems via grants and other resources	Public safety & infrastructure

Conestoga Township

Hazard Identification and Risk Evaluation Worksheet

Name: Jessie Ebersole **Title:** Secretary/Treasurer

Jurisdiction: Conestoga Township **Email:** Treasurer@conestogatwp.com

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	I	2020 Zoning Ordinance change increased acreage in Agricultural
Earthquake	NC	
Flood, Flash Flood, Ice Jam	I	Every year Flooding is a concern due to Conestoga Twp boundaries are comprised of the Susquehanna River, the Conestoga River and the Pequea Creek
Hailstorms	NC	
Invasive Species	NC	
Pandemic	I	In 2020 COVID-19 threaten all citizens of Conestoga Township
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Transportation Accidents	NC	
Utility Interruption	I	2024 New Verizon Tower installation at 3290 Main Street

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Jessie Ebersole **Title:** Secretary/Treasurer

Jurisdiction: Conestoga Township **Email:** Treasurer@conestogatwp.com

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Yes	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	Yes	05/03/2016
c. Does the municipality support requests for map updates?	If yes, specify how.		Unsure due to not having any map updates
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.		Unsure due to not having any to report
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.		Unsure but would assist as requested
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	Yes	Township Office

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	Yes	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	Yes	Township Zoning Official-Kraft Municipal Group
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	Yes	Township Zoning Official-Kraft Municipal Group
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Yes	Township Zoning Official-Kraft Municipal Group
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	Yes	Township Zoning Official-Kraft Municipal Group
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	Yes	Township Zoning Official-Kraft Municipal Group
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	No	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	Yes	Available at the Township Office

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.		Unsure due to none since 2017. However, we would notify our residents as necessary.
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	No	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	
Is the floodplain management an auxiliary function?	Community FPA	
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	
What are the barriers to running an effective NFIP program in the community?	Community FPA	
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	Yes
Are there any outstanding compliance issues (i.e., current violations)?	No	
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?	No	
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	Paper and FEMA digital flood map website
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	Meet FEMA requirements
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	Do not know
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	Do not know current. In 2014 there were 9
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	Do not know
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	Do not know
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	Do not know
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	No
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Capability Assessment Survey

Name: Jessie Ebersole **Title:** Secretary/Treasurer

Jurisdiction: Conestoga Township **Email:** Treasurer@conestogatwp.com

Phone Number: 717-872-4301

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Development		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**X**			**County EMA**	**Update in process**
Emergency Operations Plan	**X**			**County EMA**	
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan					
NFIP	**X**	**05/03/2016**		**DCED-State coordinator**	**Township updated Zoning Ordinance to comply with DCED as state coordinator for NFIP**
NFIP – Community Rating System					
Floodplain Regulations	**X**	**03/06/2016**		**Township Zoning/Planning Officer**	**Township Floodplain regulations updated in 2016 to comply with NFIP and PA Flood Plain Management Act**
Floodplain Management Plan	**X**	**05/03/2016**		**PEMA**	

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Development		
Zoning Regulations	X	10/08/2020		Township Zoning/Planning Officer	Zoning Ordinance updated in 2020
Subdivision Regulations	X	04/05/2016		Township	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	X	07/5/2016		Lancaster County Planning Commission	
Open Space Management Plan (or Parks/Rec or Greenways Plan)	X	07/5/2016		Lancaster County Planning Commission	
Stormwater Management Plan / Ordinance	X	03/06/2014		Township	
Natural Resource Protection Plan					In Conestoga Township, Shenks Ferry is on the National Historic Preservation
Capital Improvement Plan					
Economic Development Plan	X			Lancaster County Planning Commission	
Historic Preservation Plan	X			PA State Historic Preservation Office	SHPO is part of PA Historical & Museum Commission
Farmland Preservation	X			Lancaster Farmland Trust	Conestoga Township has 20 parcels preserved by the Lancaster Farmland Trust
Building Code	X			Township Code Enforcement Official	International Property Maintenance Code
Fire Code	X			Township Code Enforcement Official	International Property Maintenance Code
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X		Township & County Planning Commission	
Planners or engineers (with natural and/or human caused hazards knowledge)	X		Township Engineer	Township appointed engineers: Kraft Municipal Group
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		Township Engineer	Township appointed engineers: Kraft Municipal Group
Emergency Manager	X		Emergency Mgmt Coordinator	And LEMA
Floodplain Manager		X		
Land Surveyors		X		
Scientists or staff familiar with the hazards of the community		X		
Personnel skilled in GIS and/or FEMA's HAZUS program		X		
Grant writers or fiscal staff to handle large or complex grants		X		
Other		X		

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming				
Community Development Block Grants (CDBG)				
Special Purpose Taxes				
Gas / Electric Utility Fees				
Water / Sewer Fees				
Stormwater Utility Fees				
Development Impact Fees				
General Obligation, Revenue, and/or Special Tax Bonds				
Partnering Arrangements or Intergovernmental Agreements	X		Township Board of Supervisors	
Other	X		Township Board of Supervisors	Federal Funds – American Rescue Plan Act

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification		X		
Natural disaster or safety related school programs		X		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	X		Township	Website posting available
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	X		Conestoga Volunteer Fire Company	
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability		X	
Administrative and Technical Capability	X		
Financial Capability	X		
Education and Outreach		X	

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Jessie L Ebersole

Title: Secretary/Treasurer

Jurisdiction: Conestoga Twp

Email: Treasurer@conestogatwp.com

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	x					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.			x			
LC-3	Action 3	Elevate structures at risk of flooding.	x					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	x					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	x					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	x					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.			x			
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.			x			
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.			x			
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local			x			

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
		regulations to protect new structures constructed in hazard-prone areas.						
ConesT-1	Action 11	Improve drainage at the low spot in the road at Kendig Road and Elm Street.				x		

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com) by Friday, November 15

Jurisdiction: Martic Twp., Pequea Twp. Conestoga Twp

Name/Title of Individual Completing Worksheet: Mike Hall

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	y	
Dam Failure	Low	y	Both dams reside within our township's bounderies
Drought	Medium	y	Majority on private wells. Agriculture is large economic driver here.
Earthquake	Low	y	
Environmental Hazards: Gas and Pipeline	Medium	y	Our Townships have a larger than other amount present.
Environmental Hazards: Hazardous Materials	Medium	y	Agricultural and transportation
Flood, Flash Flood, Ice Jam	High	y	Our townships directly in path of Pequea Creek
Hailstorm	Medium	y	
Invasive Species	Medium	y	
Nuclear Incident	Medium	y	Martic Twp. Within EPZ
Pandemic and Infectious Disease	Medium	y	
Radon Exposure	High	y	
Subsidence, Sinkhole	High	y	
Substance Use Disorder and Mental Health	Medium	y	
Terrorism	Medium	y	
Tornado, Windstorm	Medium	y	
Transportation Accident	High	y	
Utility Interruption	High	y	Rual setting for several sub-stations
Wildfire	Medium	y	Large areas of Urban-Interface are present in all 3 of my townships
Winter Storm	Medium	y	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Conestoga Township

Name/Title of Individual Completing Worksheet: Jessie Ebersole

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Stone Hill Rd, Green Hill Rd, Boy Scout Rd, severe flooding and washout of gullies	Assess flood damage per location and took measures to improve conditions. Rebuilt / filled with large rock. Develop a long-term plan for erosions following a heavy rain storm	Flood / Flash Flood

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Conoy Township

Hazard Identification and Risk Evaluation Worksheet

Name: Shannon Sinopoli **Title:** Secretary/Zoning Officer

Jurisdiction: Conoy Township **Email:** ssinopoli@conoytownship.org

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	NC	
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☑ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☑ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☑ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☑ Mass Food/Animal Feed Contamination
- ☑ Opioid Addiction
- ☑ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Shannon Sinopoli **Title:** Secretary / Zoning Officer

Jurisdiction: Conoy Township **Email:** SSinopoli@conoytownship.org

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Yes	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.		← Began employment April 2022, so these questions I cannot answer specifically as I have no knowledge
c. Does the municipality support requests for map updates?	If yes, specify how.		
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.		
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.		
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.		

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	Yes	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	Yes	
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	N/A	
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Yes Twp.	
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	Yes Twp.	
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	Yes	
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	yes.	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	NO	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	NO	
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	NO	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	NO
Is the floodplain management an auxiliary function?	Community FPA	NO
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Floodplain ordinance is followed
What are the barriers to running an effective NFIP program in the community?	Community FPA	unk -
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	unk
Are there any outstanding compliance issues (i.e., current violations)?		unk
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	paper
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	Yes, See Floodplain ordinance
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	See Floodplain ordinance
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	UNK
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	UNK
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Capability Assessment Survey

Name: Shannon Sinopoli
Title: Secretary/Zoning Officer
Jurisdiction: Conoy Township
Email: ssinopoli@conoytownship.org
Phone Number: 717-367-4927

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan					
Emergency Operations Plan					
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan					
NFIP					
NFIP – Community Rating System					
Floodplain Regulations	X	3/10/16		Township	
Floodplain Management Plan	X	3/10/16		Township	
Zoning Regulations	X	5/9/24		Township	

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
Subdivision Regulations	X	3/10/16		Township	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	X	7/11/24		Township	
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance	X	4/10/14		Township	
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan	X	2009		Township	
Farmland Preservation	X			County	
Building Code	X	2004		Assoc. Bldg. Inspections Third Party Enforcement	
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X		Township Staff	Shannon Sinopoli
Planners or engineers (with natural and/or human caused hazards knowledge)				
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		David Miller/ Assoc.	
Emergency Manager	X		Wayne Southard	
Floodplain Manager	X		Township Staff	Shannon Sinopoli
Land Surveyors	X		David Miller/Assoc	
Scientists or staff familiar with the hazards of the community				
Personnel skilled in GIS and/or FEMA's HAZUS program	X		David Miller/Assoc.	
Grant writers or fiscal staff to handle large or complex grants	X		Township Staff	Jennifer Rabuck
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming		✓		
Community Development Block Grants (CDBG)		✓		
Special Purpose Taxes		✓		
Gas / Electric Utility Fees		✓		
Water / Sewer Fees		✓		
Stormwater Utility Fees		✓		
Development Impact Fees		✓		
General Obligation, Revenue, and/or Special Tax Bonds		✓		
Partnering Arrangements or Intergovernmental Agreements		✓		
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		✓		
StormReady certification		✓		
Natural disaster or safety related school programs		✓		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)		✓		
Public-private partnership initiatives addressing disaster-related issues		✓		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		✓		
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability	X		
Administrative and Technical Capability	X		
Financial Capability	X		
Education and Outreach	X		

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Shannon Sinopoli

Title: Secretary / Zoning Officer

Jurisdiction: Conoy Twp

Email: SSinopoli@conoytownship.org

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	An existing HMP does not exist
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X unk					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.	X.					
LC-3	Action 3	Elevate structures at risk of flooding.			X - Floodplain ord.			
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	X unk					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	X					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	X					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	X					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	X					
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.	X					
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local			X - Floodplain ord.			

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
		regulations to protect new structures constructed in hazard-prone areas.						
ConT-1	Action 11	Protect the Bainbridge Water Authority WWTP to the 0.2% annual chance flood level.	X UNK					

Denver Borough

Hazard Identification and Risk Evaluation Worksheet

Name: Michael Hession Title: Borough Manager/Secretary

Jurisdiction: Denver Borough Email: MHession@denverboro.net

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	NC	
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- Coastal Erosion
- Extreme Temperature
- Hurricane, Tropical Storm, Nor'easter
- Landslide
- Lightning Strike

Human-Caused

- Civil Disturbance
- Cyber Terrorism
- Environmental Hazards – Coal Mining
- Environmental Hazards – Conventional Oil/Gas Wells
- Environmental Hazards – Gas and Liquid Pipelines
- Environmental Hazards – Unconventional Oil/Gas Wells
- Levee Failure
- Mass Food/Animal Feed Contamination
- Opioid Addiction
- Terrorism
- Urban Fire/Explosion

Additional Comments:

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Michael Hession | Title: Borough Manager/Secretary

Jurisdiction: Denver Borough | Email: MHession@denverboro.net

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.		X				*Incorporate into newsletter.*
LC-3	Action 3	Elevate structures at risk of flooding.	X					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	X					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.						
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.		X				Include link on website.
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	X					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	X					
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.	X					

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.			X			
LC-6	Action 11	Work with hazardous materials facilities in the floodplain to floodproof structures up to the 0.2% annual chance flood level.	X					
DenB-1	Action 12	Denver Beer Distributor Relocation - The Denver Beer Distributor is located at 4 Main Street, Denver, PA, in adjacent to the Cocalico Creek. During heavy rain and storm events, the business has faced repetitive loss due to flooding and is looking to relocate outside of this flood-prone area and to another location on Main Street in Denver Borough.		X				*PennDOT removing and installing new bridge.*
DenB-2	Action 13	Protect Filtration #3 to the 0.2% annual chance flood level.	X					*Develop plan to floodproof property to protect water infrastructure..*

Capability Assessment Survey

Name: Michael Hession **Title:** Borough Manager/Secretary

Jurisdiction: Denver Borough **Email:** MHession@denverboro.net

Phone Number: 717-336-2831, Ext. 5

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**X**	**1/14/2019**		**County EMA**	**Approved in January, 2019**
Emergency Operations Plan	**X**	**2/14/2022**		**Denver Borough EMC**	
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan			**X**	**Administration**	**Under development.**
NFIP					
NFIP – Community Rating System					
Floodplain Regulations	**X**	**3/28/2015**		**Zoning Officer/FPA**	
Floodplain Management Plan	**X**	**3/28/2015**		**Zoning Officer/FPA**	
Zoning Regulations	**X**	**10/27/2008**		**Zoning Officer**	

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Subdivision Regulations	**X**	**8/29/2005**		**Zoning/Planning**	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	**X**	**4/2023**		**Administration**	
Open Space Management Plan (or Parks/Rec or Greenways Plan)	**X**	**9/2002**		**Administration**	
Stormwater Management Plan / Ordinance	**X**	**12/19/2022**		**Zoning Officer**	
Natural Resource Protection Plan					
Capital Improvement Plan	**X**	**2024**		**Administration**	**Ongoing and updated annually.**
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation					
Building Code	**X**	**11/14/2016**		**Zoning and Registered Building Inspection Agencies**	
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)		X		
Planners or engineers (with natural and/or human caused hazards knowledge)		X		
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)		X		
Emergency Manager	X		EMC and Deputy EMCs	
Floodplain Manager	X		Zoning Officer/FPA	
Land Surveyors		X		
Scientists or staff familiar with the hazards of the community		X		
Personnel skilled in GIS and/or FEMA's HAZUS program		X		
Grant writers or fiscal staff to handle large or complex grants	X		Administration	
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming	X		Administration	Updated annually.
Community Development Block Grants (CDBG)	X		Administration	Limited areas in Borough eligible.
Special Purpose Taxes		X		
Gas / Electric Utility Fees		X		
Water / Sewer Fees	X		Administration	Reviewed annually.
Stormwater Utility Fees		X		
Development Impact Fees		X		
General Obligation, Revenue, and/or Special Tax Bonds		X		
Partnering Arrangements or Intergovernmental Agreements	X		Administration	Sewage Treatment; Bridge Construction.
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification	X		Lancaster County	
Natural disaster or safety related school programs		X		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	X		Administration	Borough newsletter, website, and Facebook page.
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	X			Cocalico Creek Watershed Association.
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability		X	
Administrative and Technical Capability		X	
Financial Capability	X		
Education and Outreach			X

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Michael Hession **Title:** Borough Manager/Secretary

Jurisdiction: Denver Borough **Email:** MHession@denverboro.net

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Yes	Website and Municipal Building.
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	Yes	
c. Does the municipality support requests for map updates?	If yes, specify how.	Yes	Provide links to FEMA.
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	No	
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	Yes	Consultation with Borough's Zoning Officer/Floodplain Administrator.
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	Yes	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	Yes	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	Yes	
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	Yes	
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Yes	
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	Yes	Zoning Officer.
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	Yes	Complaint/investigative based.
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	No	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	Yes	Initial letters.

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	Yes	
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	Yes	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	
Is the floodplain management an auxiliary function?	Community FPA	
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	
What are the barriers to running an effective NFIP program in the community?	Community FPA	
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	
Are there any outstanding compliance issues (i.e., current violations)?	No	
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com)

Jurisdiction: Denver Borough

Name/Title of Individual Completing Worksheet: Michael Hession, Borough Manager/Secretary

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Y	
Dam Failure	Low	Y	
Drought	Medium	Y	
Earthquake	Low	Y	
Environmental Hazards: Gas and Pipeline	Medium	Y	
Environmental Hazards: Hazardous Materials	Medium	Y	
Flood, Flash Flood, Ice Jam	High	Y	
Hailstorm	Medium	Y	
Invasive Species	Medium	Y	
Nuclear Incident	Medium	Y	
Pandemic and Infectious Disease	Medium	Y	
Radon Exposure	High	Y	
Subsidence, Sinkhole	High	Y	
Substance Use Disorder and Mental Health	Medium	Y	
Terrorism	Medium	Y	
Tornado, Windstorm	Medium	Y	
Transportation Accident	High	Y	
Utility Interruption	High	Y	
Wildfire	Medium	Y	
Winter Storm	Medium	Y	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Denver Borough

Name/Title of Individual Completing Worksheet: Borough Manager/Secretary

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Minimal training for staff and limited coordination with local emergency services during an event.	Develop and implement a proactive multi-dimensional training program including representatives from the Borough, the Fire Department, EMS, and Police.	Cyber incidents, Tornado/Windstorms, Flooding, Utility Interruption, Winter storm.

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Lack of a back-up generator for the Municipal Building, Public Works, and Well #4.	Identify capacity need for emergency generators; budget funding, apply for grants, install generators, and maintain generators.	Tornado/Windstorms, Flooding, Utility Interruption, Winter storm.

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Old metal stormwater pipes in Snyder Acres Development and other older sections of the Borough are deteriorating causing roadway damage, sinkholes, and property issues.	Televise damaged/rusted stormwater lines and either install a lining or excavate and replace.	Flooding and Utility Interruption

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Flooding in Denver Memorial Park during heavy storm events.	Continued streambank restoration and floodplain mitigation/riparian buffer improvements.	Flooding and Utility Interruption

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Flooding in Denver Memorial Park during heavy storm events.	Continued streambank restoration and floodplain mitigation/riparian buffer improvements.	Flooding and Utility Interruption
Weaver Road Bridge Flooding	Working with PennDOT to replace the existing bridge with a new bridge in 2027.	Flooding and Utility Interruption

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed
In the event of massive damage requiring vulnerable populations to be relocated, lack resources and bandwidth to do so.	Develop partnerships with county, state and non-profit partners to make sure resources and connections are made to quickly mobilize in the event of a large scale event.	Cyber incidents, Tornado/Windstorms, Flooding, Utility Interruption, Winter storm.

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Flooding at Denver Memorial Park and along Little Cocalico and Cocalico Creeks in the Borough.	Keep residential and commercial property owners updated concerning hazards and potential resources to meet any challenges.	Tornado/Windstorms, Flooding, Utility Interruption, Winter storm.

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Drought Impacts on Local Water System	Possible water system interconnection with neighboring public water systems.	Utility Interruptions.
Flooding and infiltration in Sewer System	Proactive in addressing infiltration and inflow areas in the seer system to avoid issues.	Utility Interruptions.

Drumore Township

Hazard Identification and Risk Evaluation Worksheet

Name: Dwight R. Eshleman **Title:** Chairperson

Jurisdiction: Drumore Township **Email:** office@drumoretownship.org

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	N/C	
Earthquake	N/C	
Flood, Flash Flood, Ice Jam	N/C	
Hailstorms	N/C	
Invasive Species	N/C	
Pandemic	N/C	
Radon Exposure	N/C	
Subsidence and Sinkholes	N/C	
Tornado and Windstorm	N/C	
Wildfire	N/C	

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Winter Storm	N/C	
Human-Caused Hazards		
Dam Failure	N/C	
Environmental Hazards (Hazmat)	N/C	
Nuclear Incidents	N/C	
Transportation Accidents	N/C	
Utility Interruption	N/C	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Capability Assessment Survey

Name: Dwight R. Eshleman **Title:** Chairperson

Jurisdiction: Drumore Township **Email:** office@drumoretownship.org

Phone Number: 717-548-2660

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**X**	**2/7/2019**		**County EMA**	
Emergency Operations Plan	**X**	**4/2018**			
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan					
NFIP					
NFIP – Community Rating System					
Floodplain Regulations	**X**	**3/2/2016**		**Zoning Office**	
Floodplain Management Plan	**X**	**3/3/2016**		**Zoning Office**	
Zoning Regulations	**X**	**10/5/2023**		**Zoning Office**	

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Subdivision Regulations	**X**	**3/3/2016**		**Zoning Office**	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	**X**	**9/2022**		**Zoning Office**	
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance	**X**	**3/3/2016**		**Zoning Office**	
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation					
Building Code	**X**	**6/23/2004**		**Zoning Office**	**PA UCC**
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X		Zoning Office	
Planners or engineers (with natural and/or human caused hazards knowledge)	X		Zoning Office	
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		Zoning Office	
Emergency Manager	X		Board of Supervisors	
Floodplain Manager	X		Zoning Office	
Land Surveyors	X		Zoning Office	
Scientists or staff familiar with the hazards of the community				
Personnel skilled in GIS and/or FEMA's HAZUS program	X		Zoning Office	
Grant writers or fiscal staff to handle large or complex grants				
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming				
Community Development Block Grants (CDBG)				
Special Purpose Taxes				
Gas / Electric Utility Fees				
Water / Sewer Fees				
Stormwater Utility Fees				
Development Impact Fees				
General Obligation, Revenue, and/or Special Tax Bonds				
Partnering Arrangements or Intergovernmental Agreements				
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification				
StormReady certification				
Natural disaster or safety related school programs				
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)				
Public-private partnership initiatives addressing disaster-related issues				
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.				
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability	X		
Administrative and Technical Capability	X		
Financial Capability	X		
Education and Outreach	X		

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Mark Deimler, PE/BCO **Title:** Zoning Officer

Jurisdiction: Drumore Township **Email:** mark@solancoengineering.com

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Yes	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	Yes	
c. Does the municipality support requests for map updates?	If yes, specify how.	Yes	Assists residents with understanding process
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	N/A	
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	Yes	Communication with residents
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	Yes	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	Yes	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	Yes	Zoning Office
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	Yes	Zoning Office
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Yes	Zoning Office
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	Yes	Zoning Office
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	Yes	Via notices of violations issued by Zoning Office
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	Yes	All listed except CRS

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	Yes	Website

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	Yes	USPS mailing
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	No	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	No
Is the floodplain management an auxiliary function?	Community FPA	No
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Zoning Officer verifies compliance with all building and zoning permits issues.
What are the barriers to running an effective NFIP program in the community?	Community FPA	None
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	Yes
Are there any outstanding compliance issues (i.e., current violations)?		No
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	Both
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	Meet FEMA requirements via DCED/FEMA template with zoning ordinance amendment.
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	Zoning Officer reviews all zoning/building permits for compliance.
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	Unknown
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	Unknown
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	Unknown
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	Unknown
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	Unknown
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Dwight R. Eshleman | Title: Chairperson

Jurisdiction: Drumore Township | Email: office@drumoretownship.org

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.	X					
LC-3	Action 3	Elevate structures at risk of flooding.	X					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	X					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	X					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	X					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	X					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	X					
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.	X					
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local			X			

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
		regulations to protect new structures constructed in hazard-prone areas.						

Earl Township

Hazard Identification and Risk Evaluation Worksheet

Name: Amanda Martin **Title:** Secretary/Treasurer

Jurisdiction: Earl Township **Email:** amartin@earltwp.com

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	I	Covid - 19
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☒ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☒ Building and Structure Collapse
- ☐ Civil Disturbance
- ☒ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☒ Mass Food/Animal Feed Contamination
- ☒ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Capability Assessment Survey

Name: Amanda Martin **Title:** Secretary/Treasurer

Jurisdiction: Earl Township **Email:** amartin@earltwp.com

Phone Number: 717 354 0773

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**x**				
Emergency Operations Plan	**x**				
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan					
NFIP	**x**				
NFIP – Community Rating System					
Floodplain Regulations	**x**				
Floodplain Management Plan	**x**				
Zoning Regulations	**x**				

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Subdivision Regulations	x				
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	x				
Open Space Management Plan (or Parks/Rec or Greenways Plan)	x				
Stormwater Management Plan / Ordinance	x				
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation					
Building Code	x				
Fire Code	x				
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)		x		
Planners or engineers (with natural and/or human caused hazards knowledge)		x		
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)		x		
Emergency Manager	x		EMC – Jamie Weir	
Floodplain Manager	x		Earl Township	
Land Surveyors		x		
Scientists or staff familiar with the hazards of the community		x		
Personnel skilled in GIS and/or FEMA's HAZUS program		x		
Grant writers or fiscal staff to handle large or complex grants		x		
Other		x		

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming		x		
Community Development Block Grants (CDBG)		x		
Special Purpose Taxes		x		
Gas / Electric Utility Fees		x		
Water / Sewer Fees		x		
Stormwater Utility Fees		x		
Development Impact Fees		x		
General Obligation, Revenue, and/or Special Tax Bonds		x		
Partnering Arrangements or Intergovernmental Agreements		x		
Other		x		

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		x		
StormReady certification	x			
Natural disaster or safety related school programs		x		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	x		Local Fire Department	
Public-private partnership initiatives addressing disaster-related issues		x		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		x		
Other		x		

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability		X	
Administrative and Technical Capability		X	
Financial Capability	x		
Education and Outreach	x		

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Amanda Martin **Title:** Secretary/Treasurer

Jurisdiction: Earl Township **Email:** amartin@earltwp.com

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Yes	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	Yes	2016
c. Does the municipality support requests for map updates?	If yes, specify how.	Yes	We assist as needed
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	Yes	We assist as needed
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	Yes	We assist as needed
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	Yes	Yes, documents are also available online

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	Yes	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	Yes	Tom Neff – Zoning Officer, Earl Township
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	Yes	Our engineer - ELA
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Yes	Tom Neff – Zoning Officer, Earl Township
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	Yes	Tom Neff – Zoning Officer, Earl Township
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	Yes	Notice of Violation, Summary Enforcement
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	N/A	N/A, we have had a changeover in staff and are working on implementing

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	No	Not at this time, we have had a changeover in staff and are working on implementing

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	N/A	Unsure, we have had a changeover in staff
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	N/A	We assist as needed

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	No
Is the floodplain management an auxiliary function?	Community FPA	Yes
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	We assist as needed when residents have questions
What are the barriers to running an effective NFIP program in the community?	Community FPA	we have had a changeover in staff
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	Yes
Are there any outstanding compliance issues (i.e., current violations)?		No
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	Digital
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	Regulations are met
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	Applicant applies for zoning permit and flood plain. Permit issued for both project and flood plain.
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	Unknown
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	Unknown
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	Unknown
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	Unknown
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	No
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	N/A
What categories and activities provide CRS points and how can the class be improved?		N/A
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	N/A

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Amanda Martin | Title: Secretary/Treasurer

Jurisdiction: Earl Twp | Email: amartin@earltwp.com

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.			X			
LC-3	Action 3	Elevate structures at risk of flooding.			X			
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	X					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	X					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.		X				
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.			X			
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.			X			

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.			X			
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.			X			
LC-6	Action 11	Work with hazardous materials facilities in the floodplain to floodproof structures up to the 0.2% annual chance flood level.	X					
EarlT-1	Action 12	Relocate businesses along US-322 west of Martindale Road.	X					

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Earl Township

Name/Title of Individual Completing Worksheet: Amanda Martin

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
The township needs comprehensive emergency plans specific to dam failure, and current capabilities to manage potential dam breaches or flooding are insufficient.	The Township will update or create a dam failure response plan as part of the emergency management plans. This plan will outline clear evacuation procedures and flood zone mapping. To enhance response capabilities, training for staff on dam breach protocols and public education on emergency evacuation routes will be implemented.	Dam failure, flooding, severe weather
The township needs an adequate response plan for drought conditions or effective means to conserve and distribute water during prolonged droughts.	The Township will develop a drought emergency response plan that includes water rationing protocols and prioritizing water distribution to critical infrastructure. Staff training will focus on water conservation practices and emergency water distribution techniques.	Drought
The Township needs an adequate response plan for earthquake preparedness, and emergency response capabilities, particularly in older buildings.	The Township will integrate earthquake preparedness into the emergency management plan and provide training for staff to handle post-earthquake situations, such as search and rescue operations and medical triage. The community will be educated on how to prepare their homes and businesses for earthquakes.	Earthquake

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
The township building is a vital facility for local government operations and without backup power its functions could be significantly disrupted, impacting the township's ability to respond to emergencies and provide essential services to the public.	The township office manager and roadmaster will coordinate with the township engineer to assess the power needs of each building to determine the appropriate generator size. The generator will be installed at the Road Maintenance Building and the Road Maintenance Department will be responsible for the ongoing maintenance and testing of the generators, ensuring they are fully operational when needed.	Utility Interupption, Flood/Flash Flood/Ice Jams, Cyber Incidents, Tornado/Windstorm, Hailstorms, Transportation Accidents, Pandemic and Infectious Disease, Terrorism, Hazardous Materials Releases

Problem	Solution	Hazard(s) Addressed
The Road Maintenance Building is critical for the maintenance of township infrastructure, including road repair, snow removal, and the storage of public works equipment and supplies.	The township office manager and roadmaster will coordinate with the township engineer to assess the power needs of each building to determine the appropriate generator size. The generator will be installed at the Road Maintenance Building and the Road Maintenance Department will be responsible for the ongoing maintenance and testing of the generators ensuring they are fully operational when needed	Utility Interupption, Flood/Flash Flood/Ice Jams, Cyber Incidents, Tornado/Windstorm, Hailstorms, Transportation Accidents, Pandemic and Infectious Disease, Terrorism, Hazardous Materials Releases

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
There are flooding issues along Mill Road, exacerbated by undersized culverts and damaged stormwater components. Heavy rainfall events have caused frequent flooding, leading to road damage and disruption of local traffic. The existing drainage system is inadequate for handling the volume of stormwater runoff, and past flood events have caused significant erosion and infrastructure damage.	The Township will work with an engineer to address both the flooding along Mill Road and the overall stormwater management issues. As part of this solution, the culvert along Mill Road will be replaced with a larger and more efficient box culvert to accommodate increased water flow and prevent future blockages or overflow. This will stabilize the streambank adjacent to Mill Road to prevent further erosion caused by high water levels during storms. Improvements to drainage in the adjacent agricultural pasture will also be made to reduce runoff into the road. To address the larger issue, stormwater conveyance will be enhanced from existing outfalls beneath Mill Road to the stream, improving the overall drainage capacity of the area and reducing the risk of flooding. Future improvements will include the road being repaved and its stormwater infrastructure will be upgraded to ensure it can handle future stormwater runoff more effectively, mitigating flooding in the long term.	Flood/Flash Flood/Ice Jams, Winter Storm, Subsidence/Sinkholes

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
The township does not currently have any repetitive loss areas but if in the future the township would have several properties in flood-prone areas that have experienced repetitive flooding, resulting in significant damage and financial burden to homeowners and the local government. The properties are located within flood zones and are at high risk of future flood events, making them vulnerable to ongoing flood damage.	The Township will develop a Repetitive Loss Mitigation Plan. The plan will include an analysis of each affected property, considering factors such as flood history, the cost of repairs, potential elevation or buyout options, and the long-term impacts of mitigation. Based on this analysis, the Township will identify high-priority properties for elevation or buyout through FEMA's Hazard Mitigation Assistance (HMA) programs. For properties that are suitable for elevation, the Township will work with property owners and engineers to develop elevation plans to raise structures above flood levels. For properties that are prone to frequent flooding and cannot be effectively elevated, the Township will pursue buyouts, enabling property owners to relocate to safer areas, with the added benefit of reducing the risk of future flood claims.	Flood/Flash Flood/Ice Jams, Winter Storm, Rainstorm

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
The township may be at risk of damage or failure during hazard events. Vulnerabilities exist in essential services such as water supply, sewer systems, emergency response centers, and transportation networks, which are crucial for the community's ability to function before, during, and after a disaster. Without protection measures, these lifelines could be compromised, resulting in significant disruption of services and delayed recovery.	The Township will evaluate options for elevating or floodproofing critical buildings to prevent damage during floods. Infrastructure such as water treatment plants, and sewer systems will be hardened with flood barriers and fire-resistant materials, especially in areas prone to wildfires and flooding. Additionally, key transportation routes will be upgraded with improved drainage systems to ensure accessibility during emergencies. Backup power systems, such as generators, will be installed to maintain service during utility interruptions. Collaboration with utility companies will also focus on improving gas pipeline safety to prevent damage during extreme weather or seismic events. These measures will enhance the resilience of the Township's infrastructure, ensuring that essential services continue before, during, and after hazard events.	Flooding, wildfires, utility interruptions

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed
The Amish community, along with other socially vulnerable populations, faces unique challenges in disaster preparedness, response, and recovery. Due to cultural and logistical factors, such as limited access to technology, transportation, and formal healthcare, the Amish community is especially vulnerable during hazard events like floods, pandemics, or severe weather. Additionally, substance use disorder (SUD) and invasive species pose long-term health and environmental risks to these populations. The ongoing pandemic and infectious diseases also present a challenge in terms of health education, access to vaccines, and effective communication. Without targeted mitigation actions, these groups may face disproportionately higher risks during emergency situations.	To better protect socially vulnerable populations, including the Amish community, the Township will implement tailored mitigation actions. These include developing outreach programs to communicate hazard preparedness through trusted community leaders, focusing on pandemic prevention, substance use disorder support, and invasive species management. Mobile vaccination clinics and health outreach teams will provide essential services to those with limited access to healthcare, particularly during pandemics. The Township will collaborate with local addiction treatment centers to offer mobile support for substance use disorder, and work with agricultural groups to manage invasive species. Additionally, a community-based transportation network will ensure that vulnerable populations can access medical care and emergency services during disasters. These actions will improve resilience and ensure that socially vulnerable groups are better protected from future hazards like pandemics, substance use, and invasive species, while also fostering greater community support and inclusion in disaster preparedness and recovery planning.	Pandemic and Infectious Disease, Substance use disorder, invasive species, severe weather, floods

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
The township has gaps in public awareness, particularly within the Amish population. Due to cultural differences and limited access to modern technology, the Amish community may not receive or engage with typical outreach efforts like social media or online communications. As a result, they may not be fully informed about local hazards, emergency plans, or available resources. Similarly, the broader public may not have a strong understanding of general preparedness strategies or the importance of mitigation actions.	The Township will develop outreach projects that target both the Amish community and the general public. For the Amish population, outreach will be conducted through community meetings, printed materials, and collaboration with local community leaders to ensure culturally relevant information is shared. These efforts will help increase awareness of local hazards, emergency procedures, and available resources in a way that aligns with their communication preferences. For the general public, the Township will launch a series of community-wide education campaigns focused on general preparedness, mitigation actions, and available assistance programs. These campaigns will utilize flyers, brochures, public service announcements, and town hall meetings to disseminate critical information. Additionally, the Township will offer workshops on disaster preparedness and emergency response. Local businesses, schools, and community centers will also serve as distribution points for these materials, ensuring broad access. These outreach projects will ensure that all residents, including those from underserved populations, receive the necessary information to stay informed, prepared, and resilient in the face of future hazards.	All hazards/mitigation plan

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed
The community's current capabilities to address certain hazards, including nuclear incidents, gas and liquid pipeline failures, radon exposure, and wildfires, are either insufficient or require improvement. These hazards pose significant risks to both public safety and infrastructure, and without enhanced capabilities, the community could face challenges in responding effectively.	The township will integrate several critical actions into our mitigation strategy. The nuclear incident response plan will be updated to include evacuation routes, shelter-in-place procedures, radiation exposure protocols, and the acquisition of radiation detection equipment and protective gear. We will also train staff on radiation response and conduct public education on nuclear safety. For gas and liquid pipelines, we will collaborate with operators to enhance safety inspections, leak detection, and evacuation procedures, alongside providing staff training. Finally, the wildfire response plan will focus on creating firebreaks, improving evacuation routes, while training staff in wildfire suppression and emergency response. These actions will significantly improve the community's preparedness and ability to respond effectively to these hazards.	Nuclear incident, gas and liquid pipelines, radon exposure, wildfire

East Cocalico Township

Hazard Identification and Risk Evaluation Worksheet

Name: Thomas Ryan Title: Township Manager

Jurisdiction: East Cocalico Twp. Email: manager@ect.twp

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	–
Earthquake	NC	–
Flood, Flash Flood, Ice Jam	NC	–
Hailstorms	NC	–
Invasive Species	I	increased maintence in riparian buffers
Pandemic	NC	–
Radon Exposure	NC	–
Subsidence and Sinkholes	NC	–
Tornado and Windstorm	NC	–
Wildfire	NC	–
Winter Storm	NC	–
Human-Caused Hazards		
Dam Failure	NC	–
Environmental Hazards (Hazmat)	NC	–
Nuclear Incidents	NC	–
Transportation Accidents	NC	–
Utility Interruption	NC	–

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- no Coastal Erosion
- no Extreme Temperature
- no Hurricane, Tropical Storm, Nor'easter
- no Landslide
- no Lightning Strike

Human-Caused

- no Building and Structure Collapse
- no Civil Disturbance
- Yes Cyber Terrorism
- no Environmental Hazards – Coal Mining
- no Environmental Hazards – Conventional
- no Oil/Gas Wells
- no Environmental Hazards – Gas and Liquid
- no Pipelines
- no Environmental Hazards – Unconventional
- no Oil/Gas Wells
- no Levee Failure
- no Mass Food/Animal Feed Contamination
- Yes Opioid Addiction
- no Terrorism
- no Urban Fire/Explosion

Additional Comments:

none noted

Capability Assessment Survey

Name: Thomas Ryan **Title:** Township Manager

Jurisdiction: East Cocalico Township **Email:** manager@eastcocalico.com

Phone Number: (717) 336-1720

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan					
Emergency Operations Plan					
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan					
NFIP	X	3/17/16		Township	
NFIP – Community Rating System					
Floodplain Regulations	X	3/17/16		Township	
Floodplain Management Plan	X	3/17/16		Township	
Zoning Regulations	X	3/27/24		Township	

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
Subdivision Regulations	X	3/27/24		Township	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	X	May 2024		Township	
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance	X	9/15/22		Township	
Natural Resource Protection Plan	X	n/a		Township	included in Township Code
Capital Improvement Plan	X	n/a		Township	
Economic Development Plan					
Historic Preservation Plan	X	n/a		Township	included in Township Code
Farmland Preservation					
Building Code	X	5/3/06		Township	UCC - 2018 ICC
Fire Code	X	5/3/06		Township	UCC - 2018 ICC
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X		Township Manager Township Engineer	report to Board of Supervisors
Planners or engineers (with natural and/or human caused hazards knowledge)	X		Township Manager Township Engineer	report to Board of Supervisors
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		Township Engineer Building Inspector	report to Board of Supervisors
Emergency Manager		X		position vacant
Floodplain Manager	X		Township Manager	report to Board of Super.
Land Surveyors		X		
Scientists or staff familiar with the hazards of the community		X		
Personnel skilled in GIS and/or FEMA's HAZUS program		X		
Grant writers or fiscal staff to handle large or complex grants	X		Township Manager Assist. Township Man.	report to Board of Supervisors
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming	X		Board of Supervisors	
Community Development Block Grants (CDBG)	X		Township Mayor	2 CDBG zones
Special Purpose Taxes		X		
Gas / Electric Utility Fees	X		Board of Supervisors	street light tax
Water / Sewer Fees		X		
Stormwater Utility Fees		X		
Development Impact Fees	X		Board of Supervisors	
General Obligation, Revenue, and/or Special Tax Bonds	X		Board of Supervisors	
Partnering Arrangements or Intergovernmental Agreements	X		varies	
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification		X		
Natural disaster or safety related school programs		X		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)		X		
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		X		
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability			X
Administrative and Technical Capability			X
Financial Capability		X	
Education and Outreach			X

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Thomas Ryan

Title: Township Manager

Jurisdiction: East Cocalico Twp

Email: manager@ecf.tom

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

	Goals and Objectives	Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	no revisions noted
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	no revisions noted
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	no revisions noted
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	no revisions noted
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		none
Objective		
Objective		

Goal		
Objective		none
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.			X			
LC-3	Action 3	Elevate structures at risk of flooding.	X					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	X					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	X					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	X					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	X					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	X					
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.	X					
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local			X			

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
		regulations to protect new structures constructed in hazard-prone areas.			X			
ECT-1	Action 11	Protect the District Justice Office 1 to the 0.2% annual chance flood level.						
ECT-2	Action 12	Protect the Reamstown EMS facility to the 0.2% annual chance flood level.						
ECT-3	Action 13	Protect Well #8 to the 0.2% annual chance flood level.	X					
ECT-4	Action 14	Replace the Dogwood Drive bridge over Fry's Run with one with a larger opening.	X					
ECT-5	Action 15	Replace the Miller Road bridge over the Little Cocalico Creek with one with a larger opening.	X					
ECT-6	Action 16	Replace the Reinholds Road bridge over Fry's Run with one with a larger opening.	X					
ECT-7	Action 17	Replace the Smokestown Road bridge over Fry's Run with one with a larger opening.	X					
ECT-8	Action 18	Replace the Stony Run culvert under Hill Road with one with a larger opening.		X				to be bid Aug. 2024
ECT-9	Action 19	Replace the White Oak Road bridge over Fry's Run with one with a larger opening.		X				"

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Thomas Ryan **Title:** Township Manager

Jurisdiction: East Cocalico Township **Email:** Manager@ect.town

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Yes	–
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	Yes	3/17/16
c. Does the municipality support requests for map updates?	If yes, specify how.	Yes	upon recommendation by Township Engineer
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	Yes	direct submission by Township Engineer
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	Yes	property owner consent + agreement, escrow posted
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	Yes	Floodplain Administrator

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	Yes	–

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	Yes	Floodplain Administrator, Zoning Officer, Township Engineer
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	Yes	Floodplain Administrator, Zoning Officer, Township Engineer
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Yes	Floodplain Administrator, Zoning Officer, Township Engineer
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	Yes	Floodplain Administrator, Zoning Officer, Codes Clerk
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	Yes	regular route inspections conducted by Floodplain Administrator
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	No	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	Yes	assistance with understanding requirements

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	Yes	website and newsletter communications
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	no	–

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	no
Is the floodplain management an auxiliary function?	Community FPA	yes
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	none noted
What are the barriers to running an effective NFIP program in the community?	Community FPA	none noted
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	Yes
Are there any outstanding compliance issues (i.e., current violations)?	no	–
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	paper
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	yes
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	all permit applications reviewed by Floodplain Administrator
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	unknown
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	unknown
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	> 35 (FPA)
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	not known
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	no
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	–
What categories and activities provide CRS points and how can the class be improved?		–
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	–

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com)

Jurisdiction: East Cocalico Township

Name/Title of Individual Completing Worksheet: Tommy Ryan

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Y	
Dam Failure	Low	N - medium	We own older dam
Drought	Medium	Y	
Earthquake	Low	Y	
Environmental Hazards: Gas and Pipeline	Medium	Y	
Environmental Hazards: Hazardous Materials	Medium	Y	
Flood, Flash Flood, Ice Jam	High	N - medium	modest areas flood
Hailstorm	Medium	Y	
Invasive Species	Medium	Y	
Nuclear Incident	Medium	Y	
Pandemic and Infectious Disease	Medium	Y	
Radon Exposure	High	Y	
Subsidence, Sinkhole	High	Y	
Substance Use Disorder and Mental Health	Medium	Y	
Terrorism	Medium	Y	
Tornado, Windstorm	Medium	Y	
Transportation Accident	High	Y	
Utility Interruption	High	Y	
Wildfire	Medium	Y	
Winter Storm	Medium	Y	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: East Cocalico Township

Name/Title of Individual Completing Worksheet: Tommy Ryan

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard			
Cyber Incidents	X	Pandemic and Infectious Disease	X
Dam Failure	X	Radon Exposure	X
Drought	X	Subsidence/Sinkholes	X
Earthquake	X	Substance Use Disorder	X
Gas and Liquid Pipelines	X	Terrorism	X
Hazardous Materials Releases	X	Tornado/Windstorm	X
Flood/Flash Flood/Ice Jams	X	Transportation Accidents	X
Hailstorms	X	Utility Interruption	X
Invasive Species	X	Wildfire	X
Nuclear Incidents	X	Winter Storm	X

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
cyber attacked	increased software	cyber incidents
debris from storms	open new compost site*	tornado/windstorm
twp-wide incident	increase social media	nuclear/earthquake

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
no generator at PW	install generator in '25	winter storm ($30K)
generator at TB	installed generator in '24	winter storm ($25K)
encourage generators	keep permit fees modest	winter storm / hailstorm

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
inadequate culverts	replacing two in '25	flash floods ($825K)

* to open 1/2/25

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
aged dam	schedule replacement	dam failure

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
protect public wells	limit development areas	sinkholes
power loss	tree removal each year	utility interruption
utility interruption	promote PA one-call	pipelines

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed
elderly connections	encourage neighbors	pandemic
older housing units	install detectors	radon exposure
substance abuse	increase education	substance abuse

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
water useage	communicate restrictions	drought
terrorism	disseminate contacts	terrorism
illegal dumping	increase illicit notif.	hazardous mat. release

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed
loss of natives	PW inspect + removal	invasive species
traffic accidents/DUI	increased PD patrols	trans. accidents
wildwith threats	remove dry/dead veg.	wildfire

East Donegal Township

Hazard Identification and Risk Evaluation Worksheet

Name: Jeffrey L. Butler Title: Township Manager

Jurisdiction: East Donegal Township Email: jeff@eastdonegaltwp.com

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	NC	
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Capability Assessment Survey

Name: Jeffrey L. Butler

Title: Township Manager

Jurisdiction: East Donegal Township

Email: jeff@eastdonegaltwp.com

Phone Number: 717-426-3167

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	X	2/7/2019		County EMA	
Emergency Operations Plan	x	1/1/2008		EDT EMA	
Disaster Recovery Plan					
Evacuation Plan	x	4/1/2011		EDT EMA	Part of TWI Plan
Continuity of Operations Plan	x	4/1/2008		EDT EMA	
NFIP					
NFIP – Community Rating System					
Floodplain Regulations	x	3/3/2016		EDT Zoning Officer	
Floodplain Management Plan	x	3/3/2016		EDT Zoning Officer	
Zoning Regulations	x	5/2/2024		EDT Zoning Officer	

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Subdivision Regulations	x	1993		EDT	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	x	2011		EDT Marietta Borough Mount Joy Borough	Multi-Municipal Comprehensive Plan (Donegal Region)
Open Space Management Plan (or Parks/Rec or Greenways Plan)	x	2011		EDT	Part of adopted Comprehensive Plan
Stormwater Management Plan / Ordinance	x	2014		EDT	
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation					
Building Code	x	2007		EDT Building Code Official Third-party Inspection Co	
Fire Code	x	2007		EDT Building Code Official Third-party Inspection Co	
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	x		Township Administration EDT Zoning Officer	
Planners or engineers (with natural and/or human caused hazards knowledge)		x		
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)		x		
Emergency Manager	x		Township Appointed Emergency Management Coordinator	
Floodplain Manager	x		EDT Zoning Officer	
Land Surveyors		x		
Scientists or staff familiar with the hazards of the community		x		
Personnel skilled in GIS and/or FEMA's HAZUS program		x		
Grant writers or fiscal staff to handle large or complex grants		x		
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming		x		
Community Development Block Grants (CDBG)		x		
Special Purpose Taxes		x		
Gas / Electric Utility Fees		x		
Water / Sewer Fees	x		EDT Sewer Authority	
Stormwater Utility Fees		x		
Development Impact Fees		x		
General Obligation, Revenue, and/or Special Tax Bonds		x		
Partnering Arrangements or Intergovernmental Agreements		x		
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		x		
StormReady certification		x		
Natural disaster or safety related school programs		x		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	x		EDT Staff	Township Newsletter Township Website
Public-private partnership initiatives addressing disaster-related issues		x		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		x		
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability		x	
Administrative and Technical Capability		x	
Financial Capability		x	
Education and Outreach		x	

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Jeffrey L. Butler

Title: Township Manager

Jurisdiction: East Donegal Twp

Email: jeff@eastdonegaltwp.com

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.			X			
LC-3	Action 3	Elevate structures at risk of flooding.	x					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	x					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	x					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.			x			
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	x					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	x					
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.			x			
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local			x			

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
		regulations to protect new structures constructed in hazard-prone areas.						
LC-10	Action 11	Protect the structures in Chickie's Park to the 0.2% annual chance flood level.	x					
EDT-1	Action 12	Protect the Mount Joy Borough Authority WWTP to the 0.2% annual chance flood level.	x					
EDT-2	Action 13	Protect Wastewater Pump #50 to the 0.2% annual chance flood level.	x					
EDT-3	Action 14	Protect Well #33 to the 0.2% annual chance flood level.	x					
EDT-4	Action 15	Protect Well #79 to the 0.2% annual chance flood level.	x					

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: CRAIG UNDERWOOD Title: FLOOD PLAIN ADMINISTRATOR

Jurisdiction: EAST DONEGAL TWP. Email: Craig@eastdonegaltwp.com

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	YES	IN THE TWP. BLDG.
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	YES	MARCH 3, 2016
c. Does the municipality support requests for map updates?	If yes, specify how.		
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	NO	
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	YES	COUNTY LCCD & TWP. ENGINEER
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	YES	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	YES	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	YES	PLANNING & ZONING OFFICE
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	YES	PLANNING & ZONING OFFICE
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	YES	PLANNING & ZONING OFFICE
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	YES	PLANNING & ZONING OFFICE
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	YES	VIA LETTER CORRESPONDENCE; NOTICES OF VIOLATIONS
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	NO	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	NO	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	NO	
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	NO	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	NO
Is the floodplain management an auxiliary function?	Community FPA	YES
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	PERMIT REVIEW/ISSUANCE; ENGINEERING REV; MANAGING LOCAL, COUNTY, STATE FACILITATION OF APPLICATIONS
What are the barriers to running an effective NFIP program in the community?	Community FPA	
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	YES
Are there any outstanding compliance issues (i.e., current violations)?		YES
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	DIGITAL & PAPER
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	YES, FEMA/PEMA SANCTIONS ORDINANCE
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	APP. TO INCLUDE ALL FLOOD PLAIN RELATED INFO. → LOCAL, COUNTY & STATE REV. → PERMIT ISSUED
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	UNKNOWN
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	UNKNOWN
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	APPROX. 75
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	UNKNOWN
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	NO
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	NO
What categories and activities provide CRS points and how can the class be improved?		NO
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	NO

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com)

Jurisdiction: East Donegal Township

Name/Title of Individual Completing Worksheet: Scott Kingsboro / Assistant Township Manager

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Yes	
Dam Failure	Low	Yes	
Drought	Medium	Yes	
Earthquake	Low	Yes	
Environmental Hazards: Gas and Pipeline	Medium	Yes	
Environmental Hazards: Hazardous Materials	Medium	Yes	
Flood, Flash Flood, Ice Jam	High	Yes	
Hailstorm	Medium	Yes	
Invasive Species	Medium	Yes	
Nuclear Incident	Medium	Yes	
Pandemic and Infectious Disease	Medium	Yes	
Radon Exposure	High	Yes	
Subsidence, Sinkhole	High	Yes	
Substance Use Disorder and Mental Health	Medium	Yes	
Terrorism	Medium	Yes	
Tornado, Windstorm	Medium	Yes	
Transportation Accident	High	Yes	
Utility Interruption	High	Yes	
Wildfire	Medium	Yes	
Winter Storm	Medium	Yes	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: East Donegal Township

Name/Title of Individual Completing Worksheet: Scott Kingsboro / Assistant Township Manager

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Training for staff	Offer onsite training and mock drills.	Could help to address all hazards today and in the future.

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Education for regarding hazards	Get literature for bilingual residents	All storms, pandemic and transportation accidents

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed

East Drumore Township

Hazard Identification and Risk Evaluation Worksheet

Name: James E. Landis Title: Supervisor

Jurisdiction: East Drumore twp. Email:

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	I	covid
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☒ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☒ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Capability Assessment Survey

Name: James E Landis **Title:** Supervisor

Jurisdiction: East Drumore twp. **Email:**

Phone Number: 717-786-3622

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	X				
Emergency Operations Plan					
Disaster Recovery Plan					
Evacuation Plan	X			Quarryville Fire Co.	
Continuity of Operations Plan					
NFIP					
NFIP – Community Rating System					
Floodplain Regulations	X			Solanco Engineering	
Floodplain Management Plan	X			Solanco Engineering	
Zoning Regulations	X	1984		Solanco Engineering + zoning	

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Subdivision Regulations	X			Board of Supervisors Planning Commission	
Comprehensive Land Use Plan (or ~~General, Master, or Growth Mgt.~~ Plan)	X				
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance	X			Solanco Engineering	
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation	X				
Building Code	X			Commonwealth Code	
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X		Twp. Planning Comm.	
Planners or engineers (with natural and/or human caused hazards knowledge)				
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		Solanco Engineering	
Emergency Manager	X		Matt Vickers	
Floodplain Manager	X		Solanco Engineering	
Land Surveyors				
Scientists or staff familiar with the hazards of the community				
Personnel skilled in GIS and/or FEMA's HAZUS program				
Grant writers or fiscal staff to handle large or complex grants				
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming				
Community Development Block Grants (CDBG)				
Special Purpose Taxes		X		
Gas / Electric Utility Fees		X		
Water / Sewer Fees		X		
Stormwater Utility Fees				
Development Impact Fees				
General Obligation, Revenue, and/or Special Tax Bonds				
Partnering Arrangements or Intergovernmental Agreements				
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification				
StormReady certification				
Natural disaster or safety related school programs				
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)				
Public-private partnership initiatives addressing disaster-related issues				
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.				
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability			
Administrative and Technical Capability			
Financial Capability			
Education and Outreach			

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Mark Deimler Title: Zoning officer

Jurisdiction: East Drumore twp. Email:

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	yes	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	yes	
c. Does the municipality support requests for map updates?	If yes, specify how.	yes	Aides residents with understanding process
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	N/A	
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	yes	Communication with residents
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	yes	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	yes	

2. FLOODPLAIN MANAGEMENT *Requirement*	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	yes	Zoning officer
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	**If yes, specify the office responsible.**		
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.		
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	**If yes, specify the office responsible.**		
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.		Notices of violations issued by Zoning officer
c. **Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include:** • **Participation in the Community Rating System** • **Prohibition of production or storage of chemicals in SFHA** • **Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA** • **Prohibition of certain types of residential housing (manufactured homes) in SFHA** • **Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA**	**If yes, specify activities.**	yes	all listed except CRS

3. FLOOD INSURANCE *Requirement*	*Recommended Action*	*Yes/No*	*Comments*
a. **Does the municipality educate community members about the availability and value of flood insurance?**	**If yes, specify how.**	yes	website

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	yes	USPS Mailing
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	No	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	No
Is the floodplain management an auxiliary function?	Community FPA	No
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Zoning officer verifies compliance with all building & zoning permits
What are the barriers to running an effective NFIP program in the community?	Community FPA	None
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	yes
Are there any outstanding compliance issues (i.e., current violations)?		No
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	Both
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	Meet FEMA requirements via DCED/FEMA template with zoning ordinance amendment
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	Zoning officer reviews all zoning/building permits for compliance
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	Unknown
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	Unknown
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	Unknown
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	Unknown
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	Unknown
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

East Earl Township

East Hempfield Township

Hazard Identification and Risk Evaluation Worksheet

Name: Diane Garber Title: EMC

Jurisdiction: East Hempfield Twp Email: dgarber@easthempfield.org

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	I	Summer '23 June
Earthquake	I ?	Winter '24 Apr
Flood, Flash Flood, Ice Jam	(I) D overall	(↑freq of significant ~~overtopping~~ - flood plain mgmt prog areas Culvert replace/
Hailstorms	I	freq increasing nat'l
Invasive Species	I	plant (+ insect) overgrowth
Pandemic	I	COVID
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire (Brush fire)	I	farm fields during harvest (RR / Hway corridors) increased ground cover
Winter Storm	D	less winter weather
Human-Caused Hazards		
Dam Failure	N	
Environmental Hazards (Hazmat)	I	increased transportation of goods on Road / Rail
Nuclear Incidents	D	TMI closure
Transportation Accidents	I	more vehicles
Utility Interruption	I	aging infrastructure

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☑ Extreme Temperature
- ☑ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☑ Building and Structure Collapse
- ☐ Civil Disturbance
- ☑ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☑ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Mitigation Strategy 5-Year Mitigation Plan Review

Name: DIANE GARBER

Title: ASST TOWNSHIP MANAGER

Jurisdiction: East Hempfield Twp

Email: DGARBER@EASTHEMPFIELD.ORG

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease. *LCHAC*	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective	Institute applicable portions of the 2021 IFC to improve life and property safety across the Township.	
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.	X					
LC-3	Action 3	Elevate structures at risk of flooding.	X					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	X					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.			X			
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	X					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.			X			
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.			X			
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.			X			

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.			X			
EHT-1	Action 11	Culvert Replacement - Install detention basins on the Township-owned property next to Four Seasons Golf Course to help reduce flooding through the Swarr Run. Replace old and undersized culverts along the Swarr Run located at Church Street, Snapper Dam Road, and Nolt Road. The three roads are subject to frequent flooding.		X				*Design work in progress.*
EHT-2	Action 12	Install detention basins on the Township-owned property next to Four Seasons Golf Course to help reduce flooding through the Swarr Run.		X				*Estimated completion late fall 2024*
EHT-3	Action 13	Protect Potable Pump #37 to the 0.2% annual chance flood level.					X	*No longer applicable*
EHT-4	Action 14	Protect Potable Pump #38 to the 0.2% annual chance flood level.					X	*No longer applicable*
EHT-5	Action 15	Protect Well #22 to the 0.2% annual chance flood level.					X	*No longer applicable*
EHT-6	Action 16	Replace old and undersized culverts along the Swarr Run located at Church Street.				X		*2024*
EHT-7	Action 17	Replace old and undersized culverts along the Swarr Run located at Nolt Road.	X					*Seeking funding*
EHT-8	Action 18	Replace old and undersized culverts along the Swarr Run located at Snapper Dam Road.	X					*Seeking funding*

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: DIANE GARBER **Title:** ASST TOWNSHIP MANAGER

Jurisdiction: EAST HEMPFIELD TOWNSHIP **Email:** DGARBER@EASTHEMPFIELD.ORG

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Y	ELECTRONIC COPIES AVAILABLE
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	Y	2016
c. Does the municipality support requests for map updates?	If yes, specify how.	Y	electronically
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	Y	electronically
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	N	
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	Y	TOWNSHIP ENGINEER AND TOWNSHIP PLANNING DEPARTMENT

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	Y	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	Y	Planning/Engineer
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	Y	Planning/Engineer
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Y	Planning/Engineer
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	Y	Planning/Engineer
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	Y	Planning & Zoning processes
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	Y	• Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	Y	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	Y	ELECTRONICALLY
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	Y	ELECTRONICALLY

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	N
Is the floodplain management an auxiliary function?	Community FPA	Y
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	PERMIT REVIEW BY ENGINEER
What are the barriers to running an effective NFIP program in the community?	Community FPA	$$$$$$$$$$$$
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	Y
Are there any outstanding compliance issues (i.e., current violations)?		N
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	UNK

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	DIGITAL
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	YES MEET
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	UNK
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	UNK
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	UNK
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	UNK
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	UNK
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Capability Assessment Survey

Name: DIANE GARBER **Title:** ASST TOWNSHIP MANAGER

Jurisdiction: EAST HEMPFIELD TOWNSHIP **Email:** DGARBER@EASTHEMPFIELD.ORG

Phone Number: 717-844-1763

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**X**	**2019**		**County EMA**	**EHT will adopt the updated plan when it is completed**
Emergency Operations Plan	**X**	**2024**		**EHT EMA**	**Promulgation at start of year**
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan					
NFIP	**X**	**4/5/16**		**EHT PLANNING**	
NFIP – Community Rating System					
Floodplain Regulations	**X**	**4/5/16**		**EHT PLANNING**	
Floodplain Management Plan	**X**	**4/5/16**		**EHT PLANNING**	
Zoning Regulations	**X**	**2024**		**EHT PLANNING**	

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
Subdivision Regulations	**X**	**2024**		**EHT PLANNING**	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	**X**	**2024**		**EHT PLANNING**	**UPDATE IN PROGRESS**
Open Space Management Plan (or Parks/Rec or Greenways Plan)	**X**	**2024**		**EHT PARKS AND REC**	
Stormwater Management Plan / Ordinance	**X**	**9/7/22**		**EHT PLANNING**	
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation	**X**	**2024**			**AG LAND NORTH OF 283 MAINTAINED**
Building Code	**X**	**2018**			
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X		PLANNING DEPT	
Planners or engineers (with natural and/or human caused hazards knowledge)	X		DAVID MILLER ASSOC	
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		DAVID MILLER ASSOC CODE ADMINISTRATORS	
Emergency Manager	X		ADMINISTRATION	
Floodplain Manager	X		PLANNING DIRECTOR	
Land Surveyors		X		
Scientists or staff familiar with the hazards of the community	X		EMC - ADMINISTRATION	
Personnel skilled in GIS and/or FEMA's HAZUS program	X		PLANNING DEPT	
Grant writers or fiscal staff to handle large or complex grants		X		
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming	X		FINANCE/ADMINISTRATION	
Community Development Block Grants (CDBG)		X		
Special Purpose Taxes		X		
Gas / Electric Utility Fees	X		PUBLIC WORKS DEPT	
Water / Sewer Fees		X		
Stormwater Utility Fees	X		PLANNING DEPT	
Development Impact Fees	X		PLANNING DEPT	
General Obligation, Revenue, and/or Special Tax Bonds	X		FINANCE DEPT	
Partnering Arrangements or Intergovernmental Agreements	X		ADMINISTRATION	
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification		X		
Natural disaster or safety-related school programs	X		FIRE & POLICE DEPARTMENTS EMA	
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	X		FIRE & POLICE DEPARTMENTS EMA	
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	X		HEMPFIELD SCHOOL DISTRICT WELLHEAD PROTECTION WATERSHED PROTECTION	
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability		X	
Administrative and Technical Capability		X	
Financial Capability	X		
Education and Outreach		X	

East Lampeter Township

Hazard Identification and Risk Evaluation Worksheet

Name: Colin Siesholtz **Title:** Director of Planning

Jurisdiction: East Lampeter Township **Email:** planning@eltwp.org

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	NC	
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	Rely on DEP inspection, performing removal research
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- X Extreme Temperature
- X Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- X Lightning Strike

Human-Caused

- X Building and Structure Collapse
- X Civil Disturbance
- X Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- X Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- X Mass Food/Animal Feed Contamination
- X Opioid Addiction
- X Terrorism
- x Urban Fire/Explosion

Additional Comments:

Capability Assessment Survey

Name: Colin Siesholtz **Title:** Director of Planning

Jurisdiction: East Lampeter Township **Email:** planning@eltwp.org

Phone Number: 717 393 1567

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**x**	**1/21/19**		**County EMA/ East Lampeter Township**	**ELT TWP adopted in 1/21/2019**
Emergency Operations Plan	**X**	**2022**		**Township Board of Supervisors**	
Disaster Recovery Plan					**Part of EOP**
Evacuation Plan					**Part of EOP**
Continuity of Operations Plan					**Part of EOP**
NFIP	**X**				
NFIP – Community Rating System					
Floodplain Regulations	**x**	**08/2017**		**East Lampeter Township**	
Floodplain Management Plan	**x**	**08/2017**		**East Lampeter Township**	

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
Zoning Regulations	x	10/2023		East Lampeter Township	
Subdivision Regulations	x	10/17/22		East Lampeter Township	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	x	2007, 03/2020		East Lampeter Township Board of Supervisors	LIMC Growing Together and Conestoga Valley Regional Plan
Open Space Management Plan (or Parks/Rec or Greenways Plan)	X	03/2020, 10/17/22		Twp Board of Supervisors and Park Board	Conestoga Valley Parks and Rec Plan and as part of subdivision and land development ordinance
Stormwater Management Plan / Ordinance	X	7/20/20		East Lampeter Township	
Natural Resource Protection Plan	X	2006, 2020, 2022, 2023		East Lampeter Township	As part of subdivision and land development ordinance, stormwater management ordinance and zoning ordinance and Twp comprehensive plans
Capital Improvement Plan					
Economic Development Plan	X	2007 and 2020		East Lampeter Township	As part of comprehensive plans
Historic Preservation Plan	X	10/2023		East Lampeter Township	As part of Zoning Ordinance - historic resource overlay district
Farmland Preservation	X	2006, 2020, 2023		East Lampeter Township	Township comprehensive plans and zoning ordinance
Building Code	x	2004		East Lampeter Township	2018 Uniform Construction Code
Fire Code	x	2004		East Lampeter Township	As Part of Uniform Construction Code
Other - IPMC	x	2015		East Lampeter Township	2018 International Property Maintenance Code

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	x		East Lampeter Township	Staff
Planners or engineers (with natural and/or human caused hazards knowledge)	x		East Lampeter Township	Hired Third Party Engineer(s), staff
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	x		East Lampeter Township	Hired third party engineers and code review agencies
Emergency Manager		X	East Lampeter Township	Volunteer/Appointed
Floodplain Manager	x		East Lampeter Township	Director of Planning/Zoning officer
Land Surveyors	x		East Lampeter Township	Hired Third Party Engineer(s)
Scientists or staff familiar with the hazards of the community	x		East Lampeter Township	Staff
Personnel skilled in GIS and/or FEMA's HAZUS program	x		East Lampeter Township	Staff
Grant writers or fiscal staff to handle large or complex grants	x		East Lampeter Township	Staff
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming		x		
Community Development Block Grants (CDBG)	x		East Lampeter Township	
Special Purpose Taxes		x		
Gas / Electric Utility Fees		x		
Water / Sewer Fees	x		East Lampeter Sewer Authority	ELSA serves sewer, not water
Stormwater Utility Fees	x		East Lampeter Sewer Authority	
Development Impact Fees		x		
General Obligation, Revenue, and/or Special Tax Bonds	X		East Lampeter Township	
Partnering Arrangements or Intergovernmental Agreements	x		East Lampeter Township	I2 Capital Corporation
Other		X		

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		x		
StormReady certification	x		Lancaster County	
Natural disaster or safety related school programs	x		Conestoga valley School District and East Lamepter Township Fire Companies	
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	x		East Lampeter Township website, fire companies, Township newsletter, national Night Out public event	
Public-private partnership initiatives addressing disaster-related issues	x		Clean Water Partners, I2 Capital Corp., Lancaster County Conservation District	
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	x		Millcreek and Pequea Watershed Groups, Clean Water Partners	
Other	X		East Lampeter Township	Hyper Reach Notification System

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability			X
Administrative and Technical Capability			X
Financial Capability	X		
Education and Outreach			X

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Colin Siesholtz **Title:** Director of Planning

Jurisdiction: East Lampeter Township **Email:** planning@eltwp.org

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Yes	Located in front lobby.
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	Yes	Adopted as part of Floodplain Overlay District in Zoning Ordinance. Adopted 2016.
c. Does the municipality support requests for map updates?	If yes, specify how.	Yes	Letters of support
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	No	
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	Yes	
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	Yes	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	Yes	As part of Zoning Ordinance, Floodplain Overlay District.

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	Yes	If the development complies with Floodplain Overlay District.
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	Yes	Yes as required by Subdivision and Land development Ordinance, Floodplain Overlay District, Stormwater Ordinance and Building Code.
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Yes	Yes as required by Subdivision and Land development Ordinance, Floodplain Overlay District, Stormwater Ordinance and Building Code.
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	Yes	Building permits and approved plans contain this information. East Lampeter Township staff is responsible.
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	Yes	The Township investigates complaints and has an enforcement notice policy for violations.
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	Yes	As part of the East Lampeter Township Zoning ordinance, the Township has adopted a Floodplain Overlay District which regulates and/or prohibits new construction in the floodplain.

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	Yes	Flyers in Twp lobby for general public

3. FLOOD INSURANCE			
Requirement	***Recommended Action***	***Yes/No***	***Comments***
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	Yes	When required however typically the property owner informs the Twp.
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	No	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	No
Is the floodplain management an auxiliary function?	Community FPA	Yes, Director of Planning
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	The Township review all building permit applications for floodplain compliance in accordance with the Floodplain Overlay District and the state building code. The Township inspects projects through third party engineering firms and building code review and inspection agencies.
What are the barriers to running an effective NFIP program in the community?	Community FPA	Cost, time, staffing
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	Yes
Are there any outstanding compliance issues (i.e., current violations)?		No

When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book
Is a CAV or CAC scheduled or needed?		No
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	Paper
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	Yes they meet FEMA or State minimum requirements.
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	Application, Twp and TWP engineer review, ZHB decision and approval. details specified in Floodplain Overlay District in Zoning Ordinance.
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	Unknown
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	Unknown
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	Unknown
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	Unknown
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	No
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	N/A
What categories and activities provide CRS points and how can the class be improved?		N/A
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	N/A

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Colin Siesholtz | Title: Director of Planning

Jurisdiction: East Lampeter Township | Email: planning@eltwp.org

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	Yes, East Lampeter Township meets Objectives 1.1 through 1.3 by way of regulations and restrictions in the zoning ordinance, stormwater ordinance, subdivision and land development ordinance and state building code.
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	East Lampeter Township meets Obj. 2.1. see above response. East Lampeter does not meet Obj. 2.2. Obj. 2.3 Floodplain Overlay District repetitive loss provision Obj. 2.4, yes if the system is owned by East Lampeter Township. Obj. 2.5, yes via Township ordinances.
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas. Floodplain Overlay District in Zoning Ordinance - repetitive loss provision	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	Yes East Lampeter meets goals 3.1 through 3.3.
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goals and Objectives		Comments
Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	East Lampeter Township meets Objectives 4.1 through 4.5 via Township social media posts and notification as well as information located on the Township website and in the Township lobby.
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.				Yes		*TWP acquired Gibbons Park*
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.	No					
LC-3	Action 3	Elevate structures at risk of flooding.	No					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	No					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	No					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	No					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	No					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	No					
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.		Yes				*Via TWP facebook posts*
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.	Yes					

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com)

Jurisdiction: East Lampeter Township

Name/Title of Individual Completing Worksheet: Tara Hitchens, Assistant Township Manager

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Y	
Dam Failure	Low	N - HIGH	There are four dams along the Millcreek in East Lampeter Township that if failure were to occur could put lives and property at risk.
Drought	Medium	Y	
Earthquake	Low	Y	
Environmental Hazards: Gas and Pipeline	Medium	Y	
Environmental Hazards: Hazardous Materials	Medium	Y	
Flood, Flash Flood, Ice Jam	High	Y	
Hailstorm	Medium	Y	
Invasive Species	Medium	Y	
Nuclear Incident	Medium	Y	
Pandemic and Infectious Disease	Medium	Y	
Radon Exposure	High	Y	
Subsidence, Sinkhole	High	Y	
Substance Use Disorder and Mental Health	Medium	N – HIGH	Based on the Police call volume of mental health issues and substance use along with Narcan use the Township considers this hazard at a higher ranking.
Terrorism	Medium	Y	
Tornado, Windstorm	Medium	Y	
Transportation Accident	High	Y	
Utility Interruption	High	Y	
Wildfire	Medium	Y	
Winter Storm	Medium	Y	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: East Lampeter Township

Name/Title of Individual Completing Worksheet: Tara Hitchens, Assistant Township Manager

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Upgrade stormwater management on the following roadways: Millcross Road North Cherry Lane Susan Avenue Strasburg Pike Soudersburg Road	Design and install stormwater management to reduce potential flood effects.	Flood, Flash Flood, Ice Jam

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Investigate the removal of dams at Gibbons Park at Nolt Mill and Flory Park	Work with PA DEP and local partners to determine the cost benefit analysis of removal of the dams.	Dam Failure, Flood, Flash Flood, Ice Jam
Investigate retrofitting or other flood hazard mitigation measure for Oaks 1 Pump Station.	Investigate possibilities to reduce stormwater flow into the sewer pump station and potential periodic shut downs of the sewer pump station due to excessive stormwater flow.	Flood, Flash Flood, Ice Jam

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed

East Petersburg Borough

Hazard Identification and Risk Evaluation Worksheet

Name: Violet De Stefano **Title:** Local EMC

Jurisdiction: East Petersburg Borough **Email:** Vdestefano@eastpetersburgborough.org

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	I	COVID-19 Impacted the community as the most recent pandemic. It impacted the community like everyone else.
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	D	Winter weather has decreased, less snow accumulates in the winter. We get a few winter storms, but there are not as many significant storms.
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ❑ Coastal Erosion
- ❑ Extreme Temperature
- ❑ Hurricane, Tropical Storm, Nor'easter
- ❑ Landslide
- ❑ Lightning Strike

Human-Caused

- ❑ Building and Structure Collapse
- ❑ Civil Disturbance
- ❑ Cyber Terrorism
- ❑ Environmental Hazards – Coal Mining
- ❑ Environmental Hazards – Conventional Oil/Gas Wells
  Environmental Hazards – Gas and Liquid Pipelines
- ❑ Environmental Hazards – Unconventional Oil/Gas Wells
- ❑ Levee Failure
- ❑ Mass Food/Animal Feed Contamination
- ❑ Opioid Addiction
- ❑ Terrorism
- ❑ Urban Fire/Explosion

Additional Comments:

No additional comments.

Capability Assessment Survey

Name: Violet De Stefano **Title:** Emergency Management Coordinator

Jurisdiction: East Petersburg Borough **Email:** Vdestefano@eastpetersburgborough.org

Phone Number: 7178471769

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**X**			**Adopts County EMA Plan**	
Emergency Operations Plan	**X**			**County, FD, EMA**	
Disaster Recovery Plan	**X**			**EPFD**	
Evacuation Plan	**X**			**EPFD**	
Continuity of Operations Plan	**X**				
NFIP					
NFIP – Community Rating System					
Floodplain Regulations					
Floodplain Management Plan	**X**	**2016**			
Zoning Regulations	**X**	**2016**			

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Subdivision Regulations	**X**	**2016**		**EPB**	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)					
Open Space Management Plan (or Parks/Rec or Greenways Plan)			**X**	**SDE**	
Stormwater Management Plan / Ordinance	**X**	**2016**		**EPB**	
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation					
Building Code	**X**	**2016**		**EPB**	
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X		**SDE**	
Planners or engineers (with natural and/or human caused hazards knowledge)				
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		**SDE**	
Emergency Manager	X		EPB	Violet De Stefano
Floodplain Manager				
Land Surveyors				
Scientists or staff familiar with the hazards of the community				
Personnel skilled in GIS and/or FEMA's HAZUS program	X		**SDE**	For our sink holes
Grant writers or fiscal staff to handle large or complex grants			East Petersburg Borough	
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming		X		
Community Development Block Grants (CDBG)		X		We never quality
Special Purpose Taxes	X			Fire Tax
Gas / Electric Utility Fees		X		
Water / Sewer Fees	X		Water Dept.	**SDE,** Our Staff
Stormwater Utility Fees		X		
Development Impact Fees	X		EPB	Open Space Fee
General Obligation, Revenue, and/or Special Tax Bonds		X		
Partnering Arrangements or Intergovernmental Agreements		X		
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification	X			
Natural disaster or safety related school programs		X		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	X		EPB	Through EMA/Website
Public-private partnership initiatives addressing disaster-related issues		X		Not presently
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		X		Not presently
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability	X		
Administrative and Technical Capability	X		
Financial Capability	X		
Education and Outreach		X	

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Violet De Stefano **Title:** Local EMC

Jurisdiction: East Petersburg Borough **Email:** Vdestefano@eastpetersburgborough.org

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	YES	Available at https://msc.fema.gov/portal
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	YES	4-5-2016
c. Does the municipality support requests for map updates?	If yes, specify how.	YES	Letter of Map Revision (LOMR) submission process identified in §124-504.P.(2)
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	YES	Letter of Map Revision (LOMR) submission process identified in §124-504.P.(2)
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	YES	If resident does not know how to access FIRM maps, Borough Engineer will meet with them to show them how to utilize FEMA tools.
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	N/A	None to date, however they will be maintained if/when submitted.

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	YES	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	YES	Zoning officer and Borough Engineer review all plans/permits.
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	YES	Yes if located within an identified floodplain Zoning officer and Borough Engineer review all plans/permits.
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	YES	Zoning officer and Borough Engineer review all plans/permits.
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	YES	Zoning officer and Borough Engineer review all plans/permits.
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	YES	If non-compliance is found, Borough issues Notice of Violation/Cease and Desist Order outlining steps for property to come into compliance. If compliance is not met, Borough proceeds with filing with the local Magistrate.
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	YES	Current zoning ordinance, floodplain management section, prohibits Hospitals, Nursing homes, Jales or Prisons, manufactured homes within SFHA.

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	YES	Pamphlets

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	YES	Discussed at public meetings when Borough is made aware of any changes.
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	NO	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	No
Is the floodplain management an auxiliary function?	Community FPA	Yes
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	All permits are reviewed by Borough Engineer and Zoning Officer for floodplain compliance, Borough maintains GIS of all stormwater features, annual inspections of stormwater features are required by Borough MS4 program, and there are multiple public outreach events per year related to stormwater.
What are the barriers to running an effective NFIP program in the community?	Community FPA	Participation
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	YES
Are there any outstanding compliance issues (i.e., current violations)?		None known

When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book
Is a CAV or CAC scheduled or needed?		No
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	Digital
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	Yes. Floodplain ordinance adopted from model ordinance provided by FEMA
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	All permits are provided to Zoning Officer/Engineer for review. Engineer is well versed on the floodplain locations within the Borough as there is only a small section within the floodplain. If work is proposed in the floodplain, Borough Engineer reaches out to applicant to require floodplain permitting.
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	None
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	No
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Violet De Stefano | Title: EMC

Jurisdiction: East Petersburg Borough | Email: vdestefano@eastpetersburgborough.org

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	N/C
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	N/C
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	N/C
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	N/C
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal	**X**	
Objective	X	**X**
Objective	X	
Objective	X	

Goal	**X**	
Objective	X	**X**
Objective	X	
Objective	X	

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.	X					
LC-3	Action 3	Elevate structures at risk of flooding.	X					*EAST Petersburg has little flooding.*
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	X					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	X					NO RR IN EAST PETERSBURG
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.		X				
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	X					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	X					

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.			X			*WE CONTINOUSLY POST INFORMATION TO OUR WEBSITE.*
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.			X			
EPB-1	Action 11	Protect Filtration #5 to the 0.2% annual chance flood level.	X					

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: East Petersburg Borough

Name/Title of Individual Completing Worksheet: Kevin Martin/ Public Works Supervisor
Jeff Moseman MS4 Supervisor
Violet De Stefano, EMC

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
The Borough Office Staff has limited formal EOC/EMA staff training.	Development of minimum training requirements for EOC Staffing, developing plans to host an exercise to address training deficits.	All Hazards
East Petersburg Borough has a lack of specific annexes to EOP. Ex. Debris management, etc.	Creation and development of plans in conjunction with the Borough Staff, public works.	All Hazards

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Potential power outage at Maintenance Shop	On site Backup Generator and transfer switch	Utility Interruption
Potential power outage at City Interconnect	On site Backup Generator and transfer switch	Utility Interruption

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Water flow issues at Outfall OFA000101 discharge (Graystone Rd)	Increase pipe size after outfall	Flooding

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
NA		

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Security at Water Facility Structure is not as secure as we would like it to be.	Implementing fencing and perimeter cameras to provide more security.	Security of infrastructure

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Timely emergency communication to the community is lacking. Social media is the primary use of communication.	Working with Borough and County officials to explore options for a small borough, identifying alternate means for communication in an emergency.	All Hazards
A few pre-schools in the area and other vulnerable populations with young children during the week. Facilities have plans, but may need alternate assistance.	Connecting with facilities that host children during the day, working to develop plans and build resources for the families in case of any hazard.	All Hazards

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Outreach to East Petersburg Borough residents with a focus on EMA was limited/non-existent before 2024.	Building a plan to provide community outreach opportunities for EMA, Preparedness and Prevention. Finding multiple modes for outreach, communication to meet the needs of all populations in borough.	All Hazards.

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed
N/A		

Problem	Solution	Hazard(s) Addressed

Eden Township

Hazard Identification and Risk Evaluation Worksheet

Name: Jason Skonberg **Title:** Deputy EMC

Jurisdiction: Eden Township **Email:** EdentwpDEMC@comcast.net

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	Increase	Dry spring/summer impacted drafting sites for FDs
Earthquake	NC	
Flood, Flash Flood, Ice Jam	Increase	Need to reprofile roads in flood prone areas: Eden Rd, Stone Rd
Hailstorms	Increase	More incidents of hail in 2023
Invasive Species	Increase	Lantern flies; Bamboo/Weeds
Pandemic	Increase	COVID 21/22; Bird Flu
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	Increase	2 tornadoes in neighboring jurisdictions in 2023
Wildfire	NC	
Winter Storm	Increase	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	Increase	Large spill in Oct 23; More HazMat traffic on 372, MPO Rd, 472
Nuclear Incidents	NC	
Transportation Accidents	Increase	Fatal MVAs on 372, Speed issues
Utility Interruption	Increase	Tree limbs on wires: Springville Rd

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- X Extreme Temperature
- X Hurricane, Tropical Storm, *Nor'easter*
- ☐ Landslide
- X Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- X Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- X Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- X Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Eden Township Roadmaster has identified several areas of roadway within the township that need to be reprofiled to mitigate flooding during heavy rains.

There are 15-20 tree limbs currently resting on wires along Springville Road that need to be cut back to prevent power outages.

PennDOT needs to replace a drainpipe that runs underneath May Post Office Road near Furnace Road that has caused flooding and road closures. (MPO Rd is an evacuation route for the EPZ) Eden Twp EMA is in the process of contacting PennDOT to get movement on that issue.

Capability Assessment Survey

Name: Jason Skonberg **Title:** Deputy Emergency Management Coordinator

Jurisdiction: Eden Township **Email:** EdentwpDEMC@comcast.net

Phone Number: (717)

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**X**	**2/13/19**		**LEMA**	**Currently being updated**
Emergency Operations Plan	**X**	**3/13/23**		**Eden Twp EMA**	**Updated in 2023**
Disaster Recovery Plan					
Evacuation Plan			**X**	**Eden Twp EMA**	**Found in RERP**
Continuity of Operations Plan			**X**	**Eden Twp EMA**	**FY24 Project in Works**
NFIP	**X**			**Zoning Officer**	
NFIP – Community Rating System					
Floodplain Regulations	**X**	**2/2016**		**Zoning Officer**	
Floodplain Management Plan	**X**	**2/2016**		**Zoning Officer**	
Zoning Regulations	**X**	**1/2004**		**Zoning Officer**	

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
Subdivision Regulations	X	3/2016		Eden Township	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	X	10/2023		Eden Township	
Open Space Management Plan (or Parks/Rec or Greenways Plan)	X	2/2023		Eden Township	
Stormwater Management Plan / Ordinance	X	5/2014		Eden Township	
Natural Resource Protection Plan	X	2/2023		Eden Township	
Capital Improvement Plan	X	2/2023		Eden Township	
Economic Development Plan	X	2/2023		Eden Township	
Historic Preservation Plan	N/A				
Farmland Preservation	X	1/2023		Lancaster County	
Building Code	X	1/2005		Eden Township	
Fire Code			X	Eden Twp EMA	Open Burn Ordinance in Development
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X		Eden Twp Planning Commission	
Planners or engineers (with natural and/or human caused hazards knowledge)	X		Eden Twp EMA	
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X			
Emergency Manager	X		Eden Twp EMA	
Floodplain Manager	X		Zoning Officer	
Land Surveyors		X		
Scientists or staff familiar with the hazards of the community		X		
Personnel skilled in GIS and/or FEMA's HAZUS program	X		Twp Engineer/Zoning Officer	
Grant writers or fiscal staff to handle large or complex grants		X		Working on hiring grant writer
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming		X		
Community Development Block Grants (CDBG)		X		
Special Purpose Taxes		X		
Gas / Electric Utility Fees		X		
Water / Sewer Fees		X		
Stormwater Utility Fees		X		
Development Impact Fees		X		
General Obligation, Revenue, and/or Special Tax Bonds		X		
Partnering Arrangements or Intergovernmental Agreements		X		
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification	X		Eden Twp EMA	
Natural disaster or safety related school programs	X		Solanco School District	
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	X		Eden Twp EMA	
Public-private partnership initiatives addressing disaster-related issues	X		Eden Twp EMA	
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		X		
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability		X	
Administrative and Technical Capability		X	
Financial Capability	X		
Education and Outreach			X

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Mark Deimler, PE, BCO **Title:** Zoning Officer

Jurisdiction: Eden Township **Email:** mark@solancoengineering.com

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Yes	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	Yes	
c. Does the municipality support requests for map updates?	If yes, specify how.	Yes	Aides residents with understanding process
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	N/A	
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	Yes	Communication with Residents
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	Yes	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	Yes	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	Yes	Zoning Office
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	"	"
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	"	"
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	"	"
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	"	Via Notices of Violations Issued by Zoning Office
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	Yes	All listed except CRS

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	Yes	Website

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	Yes	USPS Mailing
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	No	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	Source of Information	Comments
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	No
Is the floodplain management an auxiliary function?	Community FPA	No
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Zoning Officer verifies compliance with all building and zoning permits issues.
What are the barriers to running an effective NFIP program in the community?	Community FPA	None
Compliance History		
Topic	Source of Information	Comments
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	Yes
Are there any outstanding compliance issues (i.e., current violations)?		No
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book None

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	Both
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	Meet FEMA Requirements via DCED/FEMA Template with Zoning Ordinance Amendment
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	Zoning Officer reviews all zoning/building permits for Compliance.
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	Unknown
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	Unknown
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	Uknown
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	Unknown
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	Unknown
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Jason Skonberg

Title: Deputy Emergency Management Coordinator

Jurisdiction: Eden Twp

Email: EdenTwpDEMC@comcast.net

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	Thought should be given to putting a sub-station for HazMat 2 in the southern end of the county to help protect the citizens of Lancaster County who live south of the city.
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Eden Township Goals and/or Objectives		Comments
Goal	**Protect the citizens of Eden Township as well as public and private property from the impacts of natural and human-caused hazards.**	
Objective	Identify projects related to flood mitigation.	**New Goals and objectives for the township.**
Objective	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective	Improve and maintain evacuation routes from the Peach Bottom EPZ.	

Goal	**Educate officials and the public on the potential impacts of natural and non-natural hazards, and actions to reduce those impacts.**	
Objective	Develop public education and outreach programs on hazards and hazard mitigation that will not only inform but also encourage participation.	**New Goals and objectives for the township.**
Objective	Educate the residents on the National Flood Insurance Program	
Objective	Provide access to emergency preparedness guides	

Goal	**Enhance emergency services throughout Eden Township.**	
Objective	Promote participation in the local volunteer fire and rescue companies that serve Eden Township.	**New Goals and objectives for the township.**
Objective	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective	Ensure adequacy of equipment and technology.	

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.						
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.						
LC-3	Action 3	Elevate structures at risk of flooding.						
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.						
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.						
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.						
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.						
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.						
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.						

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.						

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
ET - 1	Action 1	Pave/Reprofile Eden Road from Groff Road to May Post Office Road. (Approximately .8 miles)						NEW
ET - 2	Action 2	Coordinate with PennDOT to replace an old inadequate drainpipe that runs underneath May Post Office Road at the intersection of Eden Road.						NEW
ET - 3	Action 3	Develop informational outreach initiatives on hazard risks and hazard mitigation for residents.						NEW
ET - 4	Action 4	Encourage township residents to participate in hazard mitigation initiatives.						NEW
ET - 5	Action 5	Develop and build out the Emergency Management information page on the township website and provide a link to the Lancaster County HMP.						NEW

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
ET - 6	Action 6	Develop informational outreach initiatives to promote participation in and enhance recruitment for Bart FD and Quarryville FD.						NEW
ET - 7	Action 7	Purchase and install a radar-equipped speed sign in targeted areas to mitigate the risk of speeding and enhance road safety						NEW
ET - 8	Action 8	Conduct regular inspections and promptly remove hazardous tree limbs hanging over power lines along Springville Road to mitigate the risk of power outages and potential hazards to pedestrians and motorists.						NEW
ET - 9	Action 9	Arrange and conduct a complimentary Cybersecurity and Infrastructure Security Agency (CISA) evaluation for township IT systems to identify vulnerabilities and enhance resilience against cyber threats, safeguarding critical infrastructure and sensitive data.						NEW
ET - 10	Action 10	Participate in discussions about potential solutions/policy changes regarding farmland flooding due to stream impediments						NEW
ET - 11	Action 11	Coordinate with Lancaster Clean Water Partners to reduce the amount of nitrogen, phosphorus, and sediment in Eden Township waterways that are a part of the Chesapeake Bay Watershed.						NEW

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com) by Friday, November 15

Jurisdiction: Eden Township

Name/Title of Individual Completing Worksheet: Jason Skonberg
Deputy Emergency Management Coordinator

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Y	N/A
Dam Failure	Low	Y	N/A
Drought	Medium	Y	N/A
Earthquake	Low	Y	N/A
Environmental Hazards: Gas and Pipeline	Medium	Y	N/A
Environmental Hazards: Hazardous Materials	Medium	Y	N/A
Flood, Flash Flood, Ice Jam	High	Y	N/A
Hailstorm	Medium	Y	N/A
Invasive Species	Medium	Y	N/A
Nuclear Incident	Medium	Y	N/A
Pandemic and Infectious Disease	Medium	Y	N/A
Radon Exposure	High	Y	N/A
Subsidence, Sinkhole	High	Y	N/A
Substance Use Disorder and Mental Health	Medium	Y	N/A
Terrorism	Medium	Y	N/A
Tornado, Windstorm	Medium	Y	N/A
Transportation Accident	High	Y	N/A
Utility Interruption	High	Y	N/A
Wildfire	Medium	Y	N/A
Winter Storm	Medium	Y	N/A

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Eden Township

Name/Title of Individual Completing Worksheet: Jason Skonberg
Deputy Emergency Management Coordinator

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Uncontrolled burning of debris and waste in wildfire-prone areas contributes to air pollution, water contamination, and increased wildfire risk, threatening public health and the environment. A burn ordinance is needed to regulate burns, reduce pollutants, and mitigate fire hazards	Eden Township worked in partnership with local fire chiefs to establish a comprehensive burn ordinance aimed at preventing and controlling air and water pollution. The ordinance also grants the township the authority to implement temporary burn bans during red flag warnings and other high-risk wildfire conditions.	Wildfires, Hazardous Materials Releases, Drought

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
The municipal building, located at 489 Stony Hill Road, is identified as a critical facility and lifeline for the jurisdiction. The facility is outdated, does not have a back-up generator to maintain continuity of operations during an emergency event.	Eden Township is in the process of replacing its existing municipal building with a new, state-of-the-art facility designed to enhance operational resilience. The new building will feature an Emergency Operations Center (EOC), a backup generator, and incorporate comprehensive upgrades, including ADA-compliant accessibility, advanced electrical and HVAC systems, and cutting-edge technology infrastructure. Additionally, the project will integrate sustainable stormwater management solutions, such as a green parking lot and vegetated bioswales, to reduce runoff and support environmental sustainability.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Need to improve and maintain stormwater management systems to reduce backup and flooding.	Coordinate with PennDOT to replace an old inadequate drainpipe that runs underneath May Post Office Road at the intersection of Eden Road.	Flood/Flash Flood/Ice Jams, Hailstorms, Tornado/Windstorm, Winter Storm

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Need to improve and maintain evacuation routes from the Peach Bottom EPZ.	Pave/Reprofile Eden Road from Groff Road to May Post Office Road. (Approximately .8 miles)	Flood/Flash Flood/Ice Jams, Hailstorms, Tornado/Windstorm, Winter Storm, Nuclear Incidents

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
The municipal building, located at 489 Stony Hill Road, is identified as a critical facility and lifeline for the jurisdiction. The facility is outdated, does not have an Emergency Operations Center (EOC) to maintain continuity of operations during an emergency event.	Eden Township is in the process of replacing its existing municipal building with a new, state-of-the-art facility designed to enhance operational resilience. The new building will feature an Emergency Operations Center (EOC), a backup generator, and incorporate comprehensive upgrades, including ADA-compliant accessibility, advanced electrical and HVAC systems, and cutting-edge technology infrastructure. Additionally, the project will integrate sustainable stormwater management solutions, such as a green parking lot and vegetated bioswales, to reduce runoff and support environmental sustainability.	ALL Hazards

Problem	Solution	Hazard(s) Addressed
Cybersecurity vulnerabilities in township IT systems threaten critical infrastructure, expose sensitive data, and could lead to financial and reputational damage, with no recent comprehensive evaluation or mitigation plan in place.	Arrange and conduct a complimentary Cybersecurity and Infrastructure Security Agency (CISA) evaluation for township IT systems to identify vulnerabilities and enhance resilience against cyber threats, safeguarding critical infrastructure and sensitive data.	Cyber Incidents

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Excess nitrogen, phosphorus, and sediment from agricultural runoff and stormwater are polluting Eden Township waterways, contributing to water quality degradation and harming the Chesapeake Bay ecosystem. Coordination with Lancaster Clean Water Partners is needed to address these pollutants and improve watershed health.	Coordinate with Lancaster Clean Water Partners to reduce the amount of nitrogen, phosphorus, and sediment in Eden Township waterways that are a part of the Chesapeake Bay Watershed.	Hazardous Materials Releases
Bart Fire Department and Quarryville Fire Department are facing challenges in recruiting and retaining volunteers, which threatens their ability to respond effectively to emergencies. Informational outreach initiatives are needed to increase community awareness and boost participation in both departments.	Develop informational outreach initiatives to promote participation in and enhance recruitment for Bart FD and Quarryville FD	ALL Hazards

Problem	Solution	Hazard(s) Addressed
A significant portion of the township population (48%) is Amish, who may have limited access to traditional hazard risk information, leaving them vulnerable to disasters. Informational outreach initiatives are needed to raise awareness about hazard risks and mitigation strategies to better protect all residents, especially those in underserved communities.	Develop informational outreach initiatives on hazard risks and hazard mitigation for residents.	ALL Hazards

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Recent increases in serious physical injuries and fatal accidents due to speeding highlight a growing road safety concern. Purchasing and installing a radar-equipped speed sign in targeted areas will help mitigate speeding, raise driver awareness, and improve safety in high-risk zones.	Purchase and install a radar-equipped speed sign in targeted areas to mitigate the risk of speeding and enhance road safety	Transportation Accidents

Elizabeth Township

Hazard Identification and Risk Evaluation Worksheet

Name: LOREN MILLER Title: TWP MANAGER

Jurisdiction: ELIZABETH TOWNSHIP Email: LOREN.MILLER@ELIZABETHTOWNSHIP.NET

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	NC	
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	D	SPEEDWELL LAKE DAM REPLACED AND UPDATED
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	I	LESS TREE TRMMING ALONG ROW'S

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- [ ] Coastal Erosion
- [ ] Extreme Temperature
- [X] Hurricane, Tropical Storm, Nor'easter
- [ ] Landslide
- [X] Lightning Strike

Human-Caused

- [X] Building and Structure Collapse
- [X] Civil Disturbance
- [X] Cyber Terrorism
- [ ] Environmental Hazards – Coal Mining
- [ ] Environmental Hazards – Conventional Oil/Gas Wells
- [ ] Environmental Hazards – Gas and Liquid Pipelines
- [ ] Environmental Hazards – Unconventional Oil/Gas Wells
- [X] Levee Failure DAM FAILURE
- [X] Mass Food/Animal Feed Contamination
- [X] Opioid Addiction
- [X] Terrorism
- [ ] Urban Fire/Explosion

Additional Comments:

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: LOREN MILLER

Title: TWP MANAGER

Jurisdiction: ELIZABETH TOWNSHIP

Email: LOREN.MILLER@ELIZABETHTOWNSHIP.NET

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Y	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.		3/5/2016
c. Does the municipality support requests for map updates?	If yes, specify how.	Y	THRU SUB DIVISON AND LAND DEVELOPMENT PROCESS
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	N	
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	N	
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	N	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.		
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	Y	PLANNING AND ZONING DEPARTMENT
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	Y	PLANNING AND ZONING DEPARTMENT
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Y	PLANNING AND ZONING DEPARTMENT
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	Y	PLANNING AND ZONING DEPARTMENT
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	Y	PLANNING AND ZONING DEPARTMENT
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.		ORDINANCE 2003-3 CHAP 185

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	N	
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	N	
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	N	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	N
Is the floodplain management an auxiliary function?	Community FPA	N
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	N/A
What are the barriers to running an effective NFIP program in the community?	Community FPA	N/A
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	Y
Are there any outstanding compliance issues (i.e., current violations)?		N

When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book
Is a CAV or CAC scheduled or needed?		

Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	BOTH
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	Y
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	N/A

Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	N/A
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	N/A
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	N/A
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	N/A

Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	N/A
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	N/A
What categories and activities provide CRS points and how can the class be improved?		N/A
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	N/A

Mitigation Strategy 5-Year Mitigation Plan Review

Name:LOREN MILLER

Title: TWP MANAGER

Jurisdiction: ELIZABETH TOWNSHIP

Email:LOREN.MILLER@ELIZABETHTOWNSHIP.NET

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

	Goals and Objectives	Comments
Goal 1	**Prevent injury/death and damage from natural and human-made hazards in Lancaster County.**	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	**Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.**	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	**Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.**	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	**Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.**	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	**Improve and maintain stormwater management systems to reduce backup and flooding.**	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	**Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.**	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	**Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.**	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	**Increase public education and awareness of existing and potential hazards in Lancaster County.**	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	**Educate property owners in hazard risk areas regarding their risks and the precautions they can take.**	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	**Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).**	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.	X					
LC-3	Action 3	Elevate structures at risk of flooding.	X					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.		X				
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	X					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	X					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	X					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	X					
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.	X					
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local			X			

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
		regulations to protect new structures constructed in hazard-prone areas.						
LC-5	Action 11	Remove any dilapidated or structurally unsound dams that pose a flooding threat to the community.		X				
ElizT-1	Action 12	Work with utility companies to clear vegetation around power and communications lines.		X				

Capability Assessment Survey

Name: LOREN MILLER

Title: TWP MANAGER

Jurisdiction: ELIZABTH TOWNSHIP

Email: LOREN.MILLER@ELIZABETHTOWNSHIP.NET

Phone Number: 717.626.4302

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**X**	**2019**		**LANC CO EMA**	
Emergency Operations Plan	**X**	**2019**		**ELIZ TWP EMC**	
Disaster Recovery Plan					**NO PLAN**
Evacuation Plan					**NO PLAN**
Continuity of Operations Plan					**NO PLAN**
NFIP					**FEMA MAPS**
NFIP – Community Rating System					
Floodplain Regulations	**2016**			**TWP SUPERVISORS**	
Floodplain Management Plan					
Zoning Regulations	**X**	**03-2003**		**TWP SUPERVISORS**	**REVISED SEVERAL TIMES SINCE; NEW REVISION 11/24**

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
Subdivision Regulations	X	2015		TWP SUPERVISORS	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	X			REGIONAL PLAN	5 YEAR PLAN-STRENGTHENING COMMUNITY 2030 TO BE ADOPTED IN 2024
Open Space Management Plan (or Parks/Rec or Greenways Plan)	X				
Stormwater Management Plan / Ordinance	X	2016			
Natural Resource Protection Plan	X				IN FORGE THE FUTURE 2022 COMP PLAN
Capital Improvement Plan	X				CONSTANT IMPROVEMENT PROCESS
Economic Development Plan					IN FORGE THE FUTURE 2022 COMP PLAN
Historic Preservation Plan					IN FORGE THE FUTURE 2022 COMP PLAN
Farmland Preservation	X				IN FORGE THE FUTURE 2022 COMP PLAN
Building Code	X				FOLLOW THE STATE BLDG CODE
Fire Code	X				
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X		DAVID MILLER AND ASSOC INC	CONTRACTED SVCS
Planners or engineers (with natural and/or human caused hazards knowledge)	X		SAME	
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		SAME	
Emergency Manager	X		BVFC	FIRE CO CHIEF
Floodplain Manager		X		
Land Surveyors		X		
Scientists or staff familiar with the hazards of the community		X		
Personnel skilled in GIS and/or FEMA's HAZUS program		X		
Grant writers or fiscal staff to handle large or complex grants		X		
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming		X		
Community Development Block Grants (CDBG)		X		
Special Purpose Taxes		X		
Gas / Electric Utility Fees		X		
Water / Sewer Fees		X		
Stormwater Utility Fees	X			DURING PLAN SUBMISSION
Development Impact Fees	X			PARK/OPEN SPACE-DURING SUBMISSON
General Obligation, Revenue, and/or Special Tax Bonds		X		
Partnering Arrangements or Intergovernmental Agreements	X			WESC; WRRC
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		N/A
StormReady certification	x		LANC CO EMA	
Natural disaster or safety related school programs		X		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	X		WESC	COMMUNITY SAFTEY ED AND TRAINING
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	X		WESC; LOCAL FIRE AND EMS COMP; WARWICK HUB	SAFETY PLAN; SOCIAL SVCS
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability	X		
Administrative and Technical Capability	X		
Financial Capability	X		
Education and Outreach	X		

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com) by Friday, November 15

Jurisdiction: Elizabeth Township

Name/Title of Individual Completing Worksheet: Duane Ober, Deputy Emergency Mgt. Coordinator

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Yes	
Dam Failure	Low	No - Medium	If Speedwell Lake Dam fails, flooding downstream impacts our township; dam was rebuilt in 2016, so likelihood of failure is reduced
Drought	Medium	Yes	
Earthquake	Low	Yes	
Environmental Hazards: Gas and Pipeline	Medium	No - Low	No transmission lines travel through Elizabeth Township
Environmental Hazards: Hazardous Materials	Medium	Yes	
Flood, Flash Flood, Ice Jam	High	Yes	
Hailstorm	Medium	Yes	
Invasive Species	Medium	Yes	
Nuclear Incident	Medium	No - Low	Believe we're outside impacted area
Pandemic and Infectious Disease	Medium	Yes	
Radon Exposure	High	Yes	
Subsidence, Sinkhole	High	Yes	
Substance Use Disorder and Mental Health	Medium	Yes	
Terrorism	Medium	Yes	
Tornado, Windstorm	Medium	Yes	
Transportation Accident	High	Yes	
Utility Interruption	High	Yes	
Wildfire	Medium	No - High	Hundreds of acres of State Game Lands are in Elizabeth Township
Winter Storm	Medium	Yes	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Lititz Borough and Warwick Township

Name/Title of Individual Completing Worksheet: Duane Ober, EMC

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

**** These are mitigation actions that COULD be implemented, either at the municipal level or at the county level. These are ideas for action, not necessarily actions being taken at our municipal level. ****

Cyber Incidents: ***Action Plan***: Implement a municipal cybersecurity training program for staff and secure funding to upgrade cybersecurity infrastructure. Partner with state agencies and private cybersecurity firms for audits and workshops.

Dam Failure: ***Action Plan***: Collaborate with neighboring municipalities to evaluate regional dam safety and identify shared risks. Apply for state and federal grants to support infrastructure upgrades if applicable in surrounding areas.

Drought: ***Action Plan***: Expand drought resilience by investing in additional water storage facilities and implementing rainwater harvesting projects. Conduct public campaigns to promote water conservation practices.

Earthquake: ***Action Plan****:* Conduct a seismic risk assessment for critical infrastructure and prioritize retrofitting projects. Launch community-wide earthquake preparedness drills in collaboration with local emergency management teams.

Gas and Liquid Pipelines: ***Action Plan****:* Establish a pipeline safety task force in coordination with UGI to ensure regular assessments and response planning. Conduct joint training sessions for first responders and pipeline operators.

Hazardous Materials Releases: ***Action Plan****:* Develop a regional hazardous materials response framework that includes shared resources and training programs. Seek grants for specialized equipment and secure contracts for hazardous waste disposal.

Flood/Flash Flood/Ice Jams: ***Action Plan****:* Enhance stormwater infrastructure with green solutions like permeable pavements and retention basins. Expand public outreach on the benefits of flood insurance and preparedness measures.

Hailstorms: ***Action Plan****:* Create a grant or rebate program to help homeowners invest in hail-resistant building materials. Develop a public awareness campaign on how to protect property during hailstorms.

Invasive Species: ***Action Plan****:* Form regional partnerships to monitor and combat invasive species. Apply for environmental grants to fund eradication programs and conduct community workshops on invasive species identification and prevention.

Nuclear Incidents: ***Action Plan****:* Upgrade radiation monitoring systems and strengthen public education efforts on nuclear safety. Conduct regular evacuation drills in collaboration with neighboring jurisdictions.

Pandemic and Infectious Disease: ***Action Plan****:* Establish a local stockpile of medical supplies and PPE. Develop partnerships with regional health providers for resource sharing and expand public health surveillance systems to detect outbreaks early.

Radon Exposure: ***Action Plan****:* Offer discounted radon testing kits to residents and provide financial assistance for mitigation system installations in high-risk homes. Collaborate with state agencies to raise awareness.

Subsidence/Sinkholes: ***Action Plan****:* Invest in advanced ground monitoring technology to detect potential sinkholes. Develop zoning regulations to minimize construction in high-risk areas and conduct educational sessions for affected communities.

Substance Use Disorder: ***Action Plan****:* Secure federal funding to expand addiction recovery programs and implement a stigma-reduction campaign. Increase the availability of support groups and treatment centers in the community.

Terrorism: ***Action Plan****:* Conduct joint counter-terrorism training sessions with local, state, and federal agencies. Implement a public awareness campaign encouraging the community to report suspicious activities.

Tornado/Windstorm: ***Action Plan****:* Build storm shelters in vulnerable areas and provide financial incentives for constructing storm-resistant buildings. Expand community education on tornado safety protocols.

Transportation Accidents: ***Action Plan****:* Upgrade traffic control systems in high-risk areas and install additional signage. Implement public campaigns on safe driving practices, particularly near accident-prone locations.

Utility Interruption: ***Action Plan****:* Modernize grid infrastructure to improve reliability and promote renewable energy sources. Partner with utility companies to secure funding for battery storage solutions and backup power systems.

Wildfire: ***Action Plan****:* Develop firebreaks in at-risk areas and organize public workshops on wildfire prevention and safety. Seek funding for advanced firefighting equipment and training programs.

Winter Storm: ***Action Plan****:* Establish public-private partnerships to improve snow removal capabilities and expand community education on winter preparedness. Invest in new equipment for snow clearing and de-icing operations.

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
None identified		

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Backup power at water treatment plant and wastewater treatment plant	Evaluate condition of backup power supplies and plan for upgrades or replacements	

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Identify high risk areas	Evaluate and monitor conditions during heavy rain conditions	

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
None identified		

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
None identified		

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed
None identified		

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Education about use of Regroup	Promotion of how and why to register for Regroup	Emergency communication with community

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed
None Identified		

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Elizabeth Township

Name/Title of Individual Completing Worksheet: Dennis Strauss

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
• Lack of defensible space around properties. • Insufficient wildfire response training.	• Implement ordinances requiring vegetation management around homes and facilities. • Acquire additional wildfire suppression training	Wildfire
• Limited snow removal resources. • Insufficient shelter plans for displaced residents.	• Invest in additional snow removal equipment and road treatment supplies. • Develop warming center plans and ensure adequate staffing.	Winter Storm, Utility Disruption
• Inadequate dam evacuation plan • Limited public awareness of evacuation zones for dam.	• Develop and practice community evacuation drills. • Install automated early warning systems downstream.	Dam failure

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
• Lack of alternative routes or evacuation plans for major transportation disruptions. • Vulnerability of roads and bridges to flooding and blockages from transportation incidents • Limited resources for debris removal after severe storms or accidents.	• Develop alternative evacuation and transportation plans for critical routes. • Retrofit bridges and roads to withstand flooding, earthquakes, and other hazards. • Invest in debris management equipment and contracts with private sector providers.	Transportation Accidents, Earthquake, Flood/Flash Flood/Ice Jams.

Problem	Solution	Hazard(s) Addressed
• Lack of specialized training for responding to emerging threats (e.g., cyber incidents, terrorism). • Poor coordination between emergency service providers during multi-jurisdictional incidents.	• Conduct regular cross-discipline training and exercises, focusing on new threats. • Enhance mutual aid agreements to ensure resources are shared effectively during crises.	Hazardous Materials Releases, Terrorism, Flood/Flash Flood/Ice Jams.
• Lack of ADA-compliant or pet-friendly shelter facilities. • Insufficient resources to operate shelters for extended periods. • Limited public awareness of shelter locations and protocols.	• Retrofit shelters to be ADA-compliant and include accommodations for pets. • Develop long-term agreements with local businesses and NGOs for supplies. • Enhance public awareness campaigns and signage for shelter locations.	Winter Storm, Wildfire, Flood/Flash Flood/Ice Jams.

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
N/A		

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
N/A		

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
N/A		

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed
• Limited access to healthcare, PPE, and vaccines. • Increased risk for older adults and immunocompromised individuals.	• Establish mobile vaccine and testing clinics in rural areas. • Partner with local organizations to deliver food, medicine, and hygiene products to those in quarantine.	Pandemic and Infectious Disease
• Limited evacuation resources in rural areas could trap vulnerable residents. • Lack of awareness about dam risks and downstream hazards.	• Pre-plan evacuation routes and transportation for at-risk populations. • Conduct education campaigns about dam safety and emergency procedures.	Dam Failure
• Vulnerable populations may struggle with water shortages or increased costs. • Agricultural-dependent families face financial instability.	Implement water conservation programs and distribute water-saving kits.	Agriculture

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
• Limited knowledge of local risks such as radon exposure, dam failure, and subsidence/sinkholes. • Misconceptions about low-probability hazards like earthquakes or nuclear incidents.	Develop a multimedia campaign to educate residents on local hazards, emphasizing risks such as flooding, radon exposure, and hazardous materials releases.	All

Problem	Solution	Hazard(s) Addressed
• Residents lack awareness of emergency plans, evacuation routes, and shelter locations. • Insufficient understanding of individual and family preparedness measures (e.g., go-kits, communication plans).	• Social media posts, brochures, and infographics tailored to specific hazards. • Local TV and radio segments featuring subject matter experts. • Public service announcements in multiple languages.	All
• Outreach often does not adequately reach non-English speakers, low-income households, or older adults. • Limited programs addressing the needs of individuals with disabilities or chronic health conditions.	Host free workshops in community • Building emergency kits and creating family communication plans. • First aid basics and utility shutoff procedures.	All

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed
All of the above hazards require a planner, training, exercises, and someone to coordinate all of these issues. Relationships need to be formed with stakeholders and agency partners. This would be extremely difficult for a volunteer to do in their spare time.	**Hire full-time Emergency Management Coordinator**	All
No local law enforcement	Contract for full-time police coverage	Law Enforcement

Elizabethtown Borough

Hazard Identification and Risk Evaluation Worksheet

Name: Curtis Thompson Title: EMC

Jurisdiction: Elizabethtown Boro Email: cjthompson@etownareaema.org
Mount Joy Township
West Donegal Township

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	I	Agriculture & wildfire Water supply
Earthquake	NC	
Flood, Flash Flood, Ice Jam	I	Will check with Boro/Twp managers
Hailstorms	NC	
Invasive Species	I	Spotted Lantern Flies Emerald Ash Borer
Pandemic	I	congregate care; supply chain consistency in procedure, Avian Flu
Radon Exposure	NC	Testing/Removal
Subsidence and Sinkholes	NC	Region is geologically vulnerable
Tornado and Windstorm	I	increasing frequency property damage, life safety.
Wildfire	I	Weather window is increasing
Winter Storm	I	Drifted Roads, Flooding at warmer times (riverine)
Human-Caused Hazards		
Dam Failure	[redacted] NC	
Environmental Hazards (Hazmat)	I	Industrial premises SARA sites, over the road, Rail
Nuclear Incidents	D	TMI Decomissioned
Transportation Accidents	NC	
Utility Interruption	NC	Water impact from Drought Long term care facilities generators

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Ann Roda | Title: Borough Manager

Jurisdiction: Elizabethtown Borough | Email: aroda@etownonline.com

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	No comments or concerns with these goals and objectives.
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	No comments or concerns with these goals and objectives.
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	No comments or concerns with these goals and objectives.
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goals and Objectives		Comments
Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	No comments or concerns with these goals and objectives.
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.	X					
LC-3	Action 3	Elevate structures at risk of flooding.	X					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	X					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	X					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	X					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	X					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	X					
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.	X					
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.			X			

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Ann Roda **Title:** Borough Manager

Jurisdiction: Elizabethtown Borough **Email:** aroda@etownonline.com

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Yes	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	Yes	4/5/2016
c. Does the municipality support requests for map updates?	If yes, specify how.	No	
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	No	No new information has been gathered. If we were to receive new information, we would share it with the appropriate entities
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	Yes	Staff will provide copies of FIRM maps to anyone who requests them.
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	Yes	Administration

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	Yes	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	No	We have not had any proposed development in the SFHA
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	No	We have not had any proposed development in the floodplain
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	No	We have not had any proposed development in the floodplain
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	No	We have not had any proposed development in the floodplain
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	Yes	We have not had any violations but we monitor properties within the Borough to make sure they are compliant with the ordinance.
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	No	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	No	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	No	
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	No	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	No
Is the floodplain management an auxiliary function?	Community FPA	No
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Very few services are provided by Borough staff.
What are the barriers to running an effective NFIP program in the community?	Community FPA	Staff restrictions
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	Yes
Are there any outstanding compliance issues (i.e., current violations)?		No
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		No
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	Digital
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	The regulations meet the minimum requirements with restrictions, prohibited uses, and design standards.
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	We have not issued permits for development, but an application would be submitted and it would need to be confirmed that the application meets all regulations of the floodplain ordinance.
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	Unknown
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	Unknown
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	Unknown
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	Unknown
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	No
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Capability Assessment Survey

Name: Ann Roda **Title:** Borough Manager

Jurisdiction: Elizabethtown Borough **Email:** aroda@etownonline.com

Phone Number: 717-367-1700

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**X**	**2/21/19**		**Elizabethtown Area Emergency Management Agency**	
Emergency Operations Plan					
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan					
NFIP					
NFIP – Community Rating System					
Floodplain Regulations	**X**	**3/17/16**		**Elizabethtown Borough**	
Floodplain Management Plan					

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Zoning Regulations	**X**	**5/16/96**			**Originally adopted in 1996 and has been amended many times since that date.**
Subdivision Regulations	**X**	**6/20/85**			**Originally adopted in 1985 but has been amended many times since that date.**
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	**X**	**4/29/10**			**Currently in the process of updating the Regional Land Use Plan**
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance	**X**	**12/19/13**			
Natural Resource Protection Plan					
Capital Improvement Plan	**X**			**Elizabethtown Borough**	**This is a planning document that is reviewed each year.**
Economic Development Plan					**In 2015 the "Guiding Priorities for a Refocus on the Downtown and Community" was developed.**
Historic Preservation Plan					
Farmland Preservation					
Building Code	**X**	**4/9/04**			**Pennsylvania Uniform Construction Code**
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X		Elizabethtown Borough – Admin	
Planners or engineers (with natural and/or human caused hazards knowledge)		X		
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		Lancaster Civil Engineering	
Emergency Manager	X		Curtis Thompson – Elizabethtown Area Emergency Management Agency	
Floodplain Manager		X		
Land Surveyors	X		Lancaster Civil Engineering	
Scientists or staff familiar with the hazards of the community		X		
Personnel skilled in GIS and/or FEMA's HAZUS program		X		
Grant writers or fiscal staff to handle large or complex grants	X		Elizabethtown Borough - Admin	
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming				This is a planning document that is reviewed each year. This document assists the borough in targeting grants and planning for long term projects.
Community Development Block Grants (CDBG)				The Borough applies for CDBG funds to complete various infrastructure projects within the appropriate areas.
Special Purpose Taxes		X		
Gas / Electric Utility Fees		X		
Water / Sewer Fees		X		Sewer fees are set by ordinance-fees would be used to operate and maintain the infrastructure of the WWTP and collection system.
Stormwater Utility Fees		X		
Development Impact Fees		X		
General Obligation, Revenue, and/or Special Tax Bonds	X		Elizabethtown Borough - Admin	

Partnering Arrangements or Intergovernmental Agreements		X		
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification		X		
Natural disaster or safety related school programs		X		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)		X		
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection,		X		

emergency preparedness, access and functional needs populations, etc.				
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability		X	
Administrative and Technical Capability		X	
Financial Capability	X		
Education and Outreach		X	

Ephrata Borough

Capability Assessment Survey

Name: Randall S. Gockley **Title:** EMA Coordinator

Jurisdiction: Ephrata Borough **Email:** randygockley56@gmail.com

Phone Number: 717-466-9050

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**X**	*		**Lancaster County**	• **Last County Update**
Emergency Operations Plan	**X**	**2022**		**Borough EMA**	**Feb. 2022 by EMC**
Disaster Recovery Plan	**X**	**2022**		"	"
Evacuation Plan	**X**	**2022**		"	"
Continuity of Operations Plan			**X**		
NFIP					
NFIP – Community Rating System					
Floodplain Regulations	**X**	**3/14/16**		**Borough Zoning Dept.**	
Floodplain Management Plan	**X**	**3/14/16**		**Borough Zoning Dept.**	

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
Zoning Regulations	X	8/12/19		Borough Zoning Dept.	
Subdivision Regulations	X	3/2000		Borough Zoning Dept.	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	X	2014		Borough Government	
Open Space Management Plan (or Parks/Rec or Greenways Plan)					N/A
Stormwater Management Plan / Ordinance	X	9/12/22		Borough Government	
Natural Resource Protection Plan					
Capital Improvement Plan			X		Borough has ongoing capital budgeting for future
Economic Development Plan			X	Mainspring Ephrata	Joint partnerships to improve business district
Historic Preservation Plan					None noted
Farmland Preservation					NA
Building Code	X	6/14/04		Borough Codes Enf.	
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X			Zoning Staff and Consultants as required
Planners or engineers (with natural and/or human caused hazards knowledge)		X		Would use consultants when required
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X			Several on Staff
Emergency Manager	X			Part time certified Professional
Floodplain Manager	X			
Land Surveyors		X		
Scientists or staff familiar with the hazards of the community		X		
Personnel skilled in GIS and/or FEMA's HAZUS program	Yes			On staff
Grant writers or fiscal staff to handle large or complex grants	Yes			On staff or consultants, as required
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming	X		Borough Staff	
Community Development Block Grants (CDBG)	X		Staff in cooperation with County Government	
Special Purpose Taxes		X		
Gas / Electric Utility Fees	X		Borough Staff	Municipality has its own Electric Dept.
Water / Sewer Fees	X		Borough/Ephrata Area Joint Water Authority	
Stormwater Utility Fees	X			Will finalize with a year
Development Impact Fees		X		
General Obligation, Revenue, and/or Special Tax Bonds		X		
Partnering Arrangements or Intergovernmental Agreements	X		Borough Staff	Regional Water Authority-Emergency Services Mutual Aid (Verbal)
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification		X		Goal for completion in 2026
Natural disaster or safety related school programs	X		Fire/Police/ EMS/EMA	As requested, programs in public and private schools-Full time SRO in public School
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	X		Fire/Police/EMS/ EMA	Community events ongoing for prevention and awareness. Periodic articles in local print media
Public-private partnership initiatives addressing disaster-related issues	X		Fire/Police/EMS/EMA	Fire safety training/Disaster training through participation with Regional Chamber of Commerce
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	X		Fire/Police/EMS/EMA	Periodic visits to special need facilities in the community. Planning assistance for community events
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability		X	
Administrative and Technical Capability		X	
Financial Capability	X		
Education and Outreach	X		

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Randall Gockley **Title:** EMA Coordinator

Jurisdiction: Ephrata Borough **Email:** randygockley56@gmail.com

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Yes	Maps are available at the Municipal Office or at the County EMA Office in Manheim
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	Unk.	
c. Does the municipality support requests for map updates?	If yes, specify how.	Yes	
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	No	
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	Yes	Map review as required with federal assistance
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	Yes	County EMA

2. FLOODPLAIN MANAGEMENT			
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	No	

2. FLOODPLAIN MANAGEMENT			
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.		
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.		
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.		
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.		
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	No	
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	No	

3. FLOOD INSURANCE			
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	Yes	EMA Coordinator mentions during community speeches of disaster preparedness

3. FLOOD INSURANCE			
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	No	
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	No	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	No
Is the floodplain management an auxiliary function?	Community FPA	No
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Education during disaster preparedness talks
What are the barriers to running an effective NFIP program in the community?	Community FPA	Overall costs including staff
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	Yes
Are there any outstanding compliance issues (i.e., current violations)?		No
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book
Is a CAV or CAC scheduled or needed?	No	

Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	Both
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	Yes
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	A review is done by the Codes/Zoning Dept.
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	Unknown
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	Unknown
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	App. 30 Bellevue/Niss Ave. area
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	Penn Ave., W. Main St. near Bridge
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	No - Need additiona information on the program
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Hazard Identification and Risk Evaluation Worksheet

Name: Randall Gockley **Title:** EMA Coordinator

Jurisdiction: Ephrata Borough **Email:** randygockley56@gmail.com

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	Most short term
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	Average every 3 years
Hailstorms	NC	
Invasive Species	NC	
Pandemic	I	Covid 19 Pandemic
Radon Exposure	NC	
Subsidence and Sinkholes	I	2 notable in past 6 years
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	D	TMI shut down
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- Coastal Erosion
- Extreme Temperature
- Hurricane, Tropical Storm, Nor'easter
- Landslide
- Lightning Strike

Human-Caused

- Building and Structure Collapse
- Civil Disturbance
- Cyber Terrorism
- Environmental Hazards – Coal Mining
- Environmental Hazards – Conventional Oil/Gas Wells
- Environmental Hazards – Gas and Liquid Pipelines
- Environmental Hazards – Unconventional Oil/Gas Wells
- Levee Failure
- Mass Food/Animal Feed Contamination
- Opioid Addiction
- Terrorism
- Urban Fire/Explosion

Additional Comments:

Extreme Temperature places increased use of electricity potentially taxing the system

Cyber Terrorisn/Threat of Ransomware use considers to be a concern of municipal government and health care facilities within the community

App. 3 years ago we saw an upsurge in drug related incidents (Opioid Addiction) In 2023 and 24 the number of drug overdoses has leveled out.

Increased threat of gas line incidents because in the past 5 years, more distribution lines have been placed in the northern and central part of the Borough

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Randall Gockley

Title: EMA Coordinator

Jurisdiction: Ephrata Borough

Email:randygockley56@gmail.com

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	Agreed....Ephrata Borough has very little land for future development. Concerns of increased traffic from other municipalities and other cyber attack threats should be a high priority
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	Agreed
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	Agreed....Responsibilities and call volumes of emergency services continue to grow as the population and buildings within age. Funding and staffing continue to be a concern
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	

Goals and Objectives		Comments
Objective 3.3	Ensure adequacy of equipment and technology.	
Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	Agreed. Education and preparedness is the ey to prevention and mitigation.
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.		X				
LC-3	Action 3	Elevate structures at risk of flooding.	X					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	X					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.					X	No railroad
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.		X				
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.		X				
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.			X			
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.			X			
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.			X			

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com) by Friday, November 15

Jurisdiction: Ephrata Borough

Name/Title of Individual Completing Worksheet: Randy Gockley, Emergency Mgt. Coordinator

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Yes	
Dam Failure	Low	Yes	
Drought	Medium	Yes	
Earthquake	Low	Yes	
Environmental Hazards: Gas and Pipeline	Medium	Yes	
Environmental Hazards: Hazardous Materials	Medium	Yes	
Flood, Flash Flood, Ice Jam	High	Yes	
Hailstorm	Medium	Yes	
Invasive Species	Medium	Yes	
Nuclear Incident	Medium	Yes	
Pandemic and Infectious Disease	Medium	Yes	
Radon Exposure	High	Yes	
Subsidence, Sinkhole	High	Yes	
Substance Use Disorder and Mental Health	Medium	Yes	
Terrorism	Medium	Yes	
Tornado, Windstorm	Medium	Yes	
Transportation Accident	High	Yes	
Utility Interruption	High	Yes	
Wildfire	Medium	Yes	
Winter Storm	Medium	Yes	

Ephrata Township

Hazard Identification and Risk Evaluation Worksheet

Name: Steven a. Sawyer **Title:** Township Manager

Jurisdiction: Ephrata Township **Email:** ssawyer@ptd.net

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	I	
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	D	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- x Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Steven A. Sawyer **Title:** Township Manager

Jurisdiction: Ephrata Township **Email:** ssawyer@ptd.net

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Yes	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	Yes	
c. Does the municipality support requests for map updates?	If yes, specify how.	Yes	We have not had any requests for map updates but we would assist any resident that wants to pursue a map update.
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	Yes	
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	Yes	The Zoning Officer determines whether a proposed project is within the regulated floodplain and instructs residents on how to obtain an elevation certificate.
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	N/A	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	Yes	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	Yes	Ephrata Township Zoning Department
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	Yes	Ephrata Township Zoning Department
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Yes	Ephrata Township Zoning Department
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	Yes	Ephrata Township Zoning Department
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	Yes	Zoning Enforcement
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	Yes	Enforcement of the Ephrata Township Floodplain Regulations

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	Yes	Building Permit Process

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	Yes	Ephrata Township sent letters and maps to all property owners that had floodplain boundaries changed with the latest FEMA update.
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	Yes	We would instruct them on how to obtain information regarding flood insurance.

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	No
Is the floodplain management an auxiliary function?	Community FPA	No
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Permit review and enforcement of floodplain regulations
What are the barriers to running an effective NFIP program in the community?	Community FPA	None
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	Yes
Are there any outstanding compliance issues (i.e., current violations)?		No
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	Both
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	Yes
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	Review of Floodplain maps for any proposed development close to the floodplain.
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	Unknown
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	Unknown
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	Unknown
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	Unknown
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	No
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Capability Assessment Survey

Name: Steven A. Sawyer **Title:** Township Manager

Jurisdiction: Ephrata Township **Email:** ssawyer@ptd.net

Phone Number: 717-733-1044

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**x**			**County EMA**	
Emergency Operations Plan	**x**	**11/2019**		**Ephrata Township EMA**	
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan					
NFIP					
NFIP – Community Rating System					
Floodplain Regulations					
Floodplain Management Plan	**x**	**3/1/2016**		**Ephrata Township**	
Zoning Regulations	**x**	**2/8/2000**		**Ephrata Township**	

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
Subdivision Regulations					
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	**x**	**4/7/2009**		**Ephrata Township**	
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance	**x**	**5/6/2014**		**Ephrata Township**	
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation					
Building Code	**x**	**4/6/2004**		**Ephrata Township**	
Fire Code	**x**	**4/6/2004**		**Ephrata Township**	
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	x		Ephrata Township	
Planners or engineers (with natural and/or human caused hazards knowledge)	x		Rettew Associates	
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	x		Rettew Associates and Associated Building Inspections LLC	
Emergency Manager	x		Bill Howard – Eph Twp. EMC	
Floodplain Manager	x		Ephrata Township	
Land Surveyors				
Scientists or staff familiar with the hazards of the community				
Personnel skilled in GIS and/or FEMA's HAZUS program	x		Ephrata Township EMC	
Grant writers or fiscal staff to handle large or complex grants				
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming		x		
Community Development Block Grants (CDBG)		x		
Special Purpose Taxes		x		
Gas / Electric Utility Fees		x		
Water / Sewer Fees		x		
Stormwater Utility Fees		x		
Development Impact Fees		x		
General Obligation, Revenue, and/or Special Tax Bonds		x		
Partnering Arrangements or Intergovernmental Agreements		x		
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		x		
StormReady certification		x		
Natural disaster or safety related school programs		x		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	x			
Public-private partnership initiatives addressing disaster-related issues		x		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	x			
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability		x	
Administrative and Technical Capability		x	
Financial Capability		x	
Education and Outreach		x	

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Steven A. Sawyer | Title: Township Manager

Jurisdiction: Ephrata Twp | Email: ssawyer@ptd.net

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	No suggested changes
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	No suggested changes
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	No suggested changes
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	No suggested changes
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective	Replace the Mohler Church Road Bridge. The design will incorporate new approaches to the bridge that will hopefully reduce the frequency of flooding on the roadway.	**The project is currently in design and is expected to be completed in three to four years.**
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.		x				*Ephrata Township acquired one house/property in the 100 year floodplain and removed the structure.*
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.			x			*Ephrata Township sent maps to all residents that had the floodplain on the property changed with the last FEMA update.*
LC-3	Action 3	Elevate structures at risk of flooding.	x					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.		x				
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	x					

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.		x				
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	x					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.		x				
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.		x				
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.			x			
LC-8	Action 11	Nissley Acres Floodwater Storage Area - Create a floodwater storage area to assist in reducing flood levels in the Nissley Acres development and a downstream residential area in Ephrata Township that is also prone to flooding. The location of the storage area would be on Borough-owned property so it would not require acquisition of land.	x					*Nissley Acres is in Ephrata Borough. Ephrata Township hopes to acquire approximately 10 acres of floodplain land downstream on Nissley Acres and complete a PRP project.*

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
EphT-1	Action 12	Improve drainage system at the intersection of Frysville Road and Newswanger Road.				x		*Installed larger storm water pipes to reduce flooding of the roadway.*
EphT-2	Action 13	Protect the Ephrata Boro WWTP #2 to the 0.2% annual chance flood level.	x					*WWTP 2 is owned and operated by Ephrata Borough.*
EphT-3	Action 14	Protect Wastewater Pump #120 to the 0.2% annual chance flood level.	x					*Owned and operated by Ephrata Borough*
EphT-4	Action 15	Protect Wastewater Pump #123 to the 0.2% annual chance flood level.	x					*Owned and operated by Ephrata Borough*
EphT-5	Action 16	Protect Wastewater Pump #9 to the 0.2% annual chance flood level.	x					*Owned and operated by Ephrata Borough*

Fulton Township

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Fulton Twp Mike Church Title: Vice Chairman

Jurisdiction: Fulton Twp Email: Fultontwp@comcast.net

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

	Goals and Objectives	Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.		X				
LC-3	Action 3	Elevate structures at risk of flooding.	X					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	X					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	X					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	X					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	X					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.		X				
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.		X				
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local			X			

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
		regulations to protect new structures constructed in hazard-prone areas.				X		

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com) by Friday, November 15

Jurisdiction: Fulton Township

Name/Title of Individual Completing Worksheet: Mike Church, Vice Chairman – Board of Supervisors

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Y	
Dam Failure	Low	Y	
Drought	Medium	Y	
Earthquake	Low	Y	
Environmental Hazards: Gas and Pipeline	Medium	Y	
Environmental Hazards: Hazardous Materials	Medium	Y	
Flood, Flash Flood, Ice Jam	High	Y	
Hailstorm	Medium	Y	
Invasive Species	Medium	Y	
Nuclear Incident	Medium	Y	
Pandemic and Infectious Disease	Medium	Y	
Radon Exposure	High	Y	
Subsidence, Sinkhole	High	Y	
Substance Use Disorder and Mental Health	Medium	Y	
Terrorism	Medium	Y	
Tornado, Windstorm	Medium	Y	
Transportation Accident	High	Y	
Utility Interruption	High	Y	
Wildfire	Medium	Y	
Winter Storm	Medium	Y	

Lancaster City

Hazard Identification and Risk Evaluation Worksheet

Name:	**Chris DeLong**	**Title:**	**Emergency Management Coordinator**
Jurisdiction:	**Lancaster City**	**Email:**	**cdelong@cityoflancasterpa.gov**

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	I	Covid 19 affected the city financially.
Radon Exposure	NC	
Subsidence and Sinkholes	I	Sinkholes have increased due to aging infrastructure and geologic area.
Tornado and Windstorm	I	Windstorms have caused issues since the last update.
Wildfire	NC	
Winter Storm	NC	These continue to be a problem when they occur.
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	I	Due to SARA sites, we have seen an increase in hazmat incidents.
Nuclear Incidents	NC	

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Transportation Accidents	NC	
Utility Interruption	I	We have seen natural gas and electric utility interruptions.

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- X Extreme Temperature
- X Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- X Lightning Strike

Human-Caused

- X Building and Structure Collapse
- X Civil Disturbance
- X Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- X Mass Food/Animal Feed Contamination
- X Opioid Addiction
- X Terrorism
- X Urban Fire/Explosion

Additional Comments:

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Chris DeLong **Title:** Emergency Management Coordinator

Jurisdiction: Lancaster City **Email:** cdelong@cityoflancasterpa.gov

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	***Recommended Action***	***Yes/No***	***Comments***
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Yes	This is available to our public. https://lancaster-pa.maps.arcgis.com/apps/Viewer/index.html?appid=538346c47e9a4f22b190f3630d92ce56
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	Last adopted 2016	
c. Does the municipality support requests for map updates?	If yes, specify how.	Yes	
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	Yes	We submitted an updated surface flood modeling for the Water Street corridor for the Water Street Resiliency in December 2023.
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	No	
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	Yes	All changes to the zoning map, including the floodplain, is voted on by city council.

2. FLOODPLAIN MANAGEMENT			
Requirement	***Recommended Action***	***Yes/No***	***Comments***
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	Yes	Lancaster City Code 109 Part 2
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	Yes	Lancaster City Code 109-17
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	No	All subdivisions and land development are required to adhere to the flood prone areas section 265-39 of the Lancaster City Code.
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Yes	Lancaster City Code 109 and the international building code.
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	No	
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	Yes	We have a well-established inspection process to verify compliance.
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	Yes	Prohibition of building any structures in 100-year floodplain. Limitations are explained for restrictions within floodplain areas that can be found in the Lancaster City Code 109-7 through 15.

3. FLOOD INSURANCE			
Requirement	***Recommended Action***	***Yes/No***	***Comments***
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	No	
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	No	If there were changes that impacted residents, we would.
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	Yes	This occurs rarely but usually through HUD regarding home repairs.

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	We are in an employee transition, but we will look to gain the certification in the future.
Is the floodplain management an auxiliary function?	Community FPA	Yes, this is a secondary responsibility for an employee in the community planning and economic engagement department.
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Permit review, GIS, and engineering capability by others in the department.
What are the barriers to running an effective NFIP program in the community?	Community FPA	Proper financial support.
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	To our best knowledge, yes.
Are there any outstanding compliance issues (i.e., current violations)?		To our best knowledge, no.

When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book
Is a CAV or CAC scheduled or needed?		Is needed and we will look to schedule a visit in the future.
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	Digital
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	Our floodplain regulations meet the state in reference to the 100-year floodplain guidance.
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	As part of a zoning review, an engineer must sign off that the structure does not cause a rise in the 100-year floodplain. Approval must also be granted by FEMA. Codes would review the site under the floodplain management regarding construction materials per chapter 109-6.
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	No but we will look into this in the future.
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Capability Assessment Survey

Name:	**Chris DeLong**	**Title:**	**Emergency Management Coordinator**
Jurisdiction:	**Lancaster City**	**Email:**	**cdelong@cityoflancasterpa.gov**
Phone Number:	**717-740-0588**		

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan					
Emergency Operations Plan	**X**		**X**	**City Emergency Management**	
Disaster Recovery Plan					
Evacuation Plan			**x**	**City Emergency Management**	
Continuity of Operations Plan			**x**	**City Emergency Management**	
NFIP	**x**	**4/29/16**		**Community Planning and Economic Development**	
NFIP – Community Rating System					
Floodplain Regulations					
Floodplain Management Plan					

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Zoning Regulations	x	7/14/17		Department of Economic Development and Neighborhood Revitalization	
Subdivision Regulations	x	11/24/15		Department of Economic Development and Neighborhood Revitalization	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	x	2015		Department of Economic Development and Neighborhood Revitalization	
Open Space Management Plan (or Parks/Rec or Greenways Plan)	x	7/31/09		Department of Public Works	
Stormwater Management Plan / Ordinance	x	2/24/15		Department of Public Works, Bureau of Stormwater	
Natural Resource Protection Plan	x	4/10/07		Department of Economic Development and Neighborhood Revitalization	
Capital Improvement Plan	x			City of Lancaster, PA	
Economic Development Plan	x	8/11/15		Department of Economic Development and Neighborhood Revitalization	
Historic Preservation Plan	x			Department of Economic Development and Neighborhood Revitalization	
Farmland Preservation					
Building Code	x	6/2023		Department of Community Planning and Economic Development	IBC 2018
Fire Code	x	6/2023		Fire Bureau	IFC 2018
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	x		Department of Community Planning and Economic Development and Department of Public Works	
Planners or engineers (with natural and/or human caused hazards knowledge)	x		Department of Community Planning and Economic Development and Department of Public Works	
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	x		Department of Community Planning and Economic Development and Department of Public Works	
Emergency Manager	x		City Emergency Management	
Floodplain Manager	x		Department of Community Planning and Economic Development	
Land Surveyors	x		Department of Public Works	
Scientists or staff familiar with the hazards of the community	x		Department of Public Works	
Personnel skilled in GIS and/or FEMA's HAZUS program	x		Bureau of Information Technology	
Grant writers or fiscal staff to handle large or complex grants	x		Department of Administrative Services	
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming	x		Department of Public Works	
Community Development Block Grants (CDBG)	x		Department of Community Planning and Economic Development	
Special Purpose Taxes		x		
Gas / Electric Utility Fees		x		
Water / Sewer Fees	x			
Stormwater Utility Fees	x			
Development Impact Fees		x		
General Obligation, Revenue, and/or Special Tax Bonds	x			
Partnering Arrangements or Intergovernmental Agreements		x		
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification		X		
Natural disaster or safety related school programs		X		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	X		Fire Bureau and Stormwater Bureau	Fire Bureau conducts residential, commercial, and industrial inspections. They also install residential smoke detectors, school fire prevention and community CPR.
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	X		Council of Churches	
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability		X	
Administrative and Technical Capability		X	
Financial Capability	X		
Education and Outreach		X	

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Chris DeLong

Title: Emergency Management Coordinator

Jurisdiction: Lancaster City

Email: cdelong@cityoflancasterpa.gov

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.			X			
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.		X				
LC-3	Action 3	Elevate structures at risk of flooding.	X					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.			X			
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	X					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	X					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	X					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	X					
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.	X					

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.			X			
LancC-1	Action 11	Improve drainage on New Holland Avenue under the railroad overpass.				X		
LancC-2	Action 12	Improve drainage on North Plum Street under the railroad overpass.			X			
LancC-3	Action 13	Improve drainage on Wabank Road 70 feet west of Hershey Avenue.				X		
LancC-4	Action 14	Protect Potable Pump #79 to the 0.2% annual chance flood level.	X					
LancC-5	Action 15	Protect Potable Pump #98 to the 0.2% annual chance flood level.	X					
LancC-6	Action 16	Protect Tank #7 to the 0.2% annual chance flood level.	This is an unknown action item.					
LancC-7	Action 17	Protect the Lancaster City Conestoga Filter Plant to the 0.2% annual chance flood level.			X			Added generator
LancC-8	Action 18	Flood proofing Stevens Avenue Sewage Pumping Station – Provide additional flood proofing to sewage pumping station.				X		
LancC-9	Action 19	Flood proofing of Conestoga Gardens Sewage Pumping Station - Provide additional flood proofing to sewage pumping station.				X		
LancC-10	Action 20	Flood proofing Susquehanna Sewage Pumping Station - Provide additional flood proofing to sewage pumping station.				X		

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com) by Friday, November 15

Jurisdiction: Lancaster City

Name/Title of Individual Completing Worksheet: Chris DeLong/Emergency Management Coordinator

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High		
Dam Failure	Low		
Drought	Medium		
Earthquake	Low		
Environmental Hazards: Gas and Pipeline	Medium		
Environmental Hazards: Hazardous Materials	Medium		
Flood, Flash Flood, Ice Jam	High	No, medium	River flooding is considered low due to mitigation efforts along the Conestoga River. Flash flooding is more prevalent, but areas of concern have been targeted for mitigation.
Hailstorm	Medium		
Invasive Species	Medium	No, low	We don't have any agriculture to negatively affect our municipality.
Nuclear Incident	Medium		
Pandemic and Infectious Disease	Medium		
Radon Exposure	High	No, low	We do not have enough frequency with enough impact to our community to warrant a high ranking.
Subsidence, Sinkhole	High		
Substance Use Disorder and Mental Health	Medium		
Terrorism	Medium		
Tornado, Windstorm	Medium		
Transportation Accident	High	No, medium	Our transportation accidents are frequent but low/moderate impact.
Utility Interruption	High		
Wildfire	Medium	No, low	We have very little wooden or open space that would encourage and spread wild fires.
Winter Storm	Medium		

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: City of Lancaster, PA

Name/Title of Individual Completing Worksheet: Chris DeLong, EMC

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents- IT	Pandemic and Infectious Disease- health
Dam Failure	Radon Exposure- health
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder- health, fire, police
Gas and Liquid Pipelines	Terrorism-police, fire
Hazardous Materials Releases- health, fire, water	*Tornado/Windstorm*
Flood/Flash Flood/Ice Jams	Transportation Accidents- police
Hailstorms	Utility Interruption
Invasive Species- health	Wildfire-health
Nuclear Incidents	Winter Storm- streets,

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Floodplain requirements are scattered throughout various city ordinances	Solutions could include staff training, ordinance updates, creation of a floodplain management team.	Flooding
Condition Assessments – Green Infrastructure	Conduct a facilities condition assessment to ensure green infrastructure practices are functioning as designed. Specific attention to elevated risk of sinkhole formation.	Sinkhole, flooding

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Lancaster Advanced Wastewater Treatment Plant (AWWWTP) Electric Power Infrastructure. The AWWTP currently dual electric power feed and cannot function if both power feeds were not available.	Emergency diesel generator for emergency power generation at the Lancaster Advanced Wastewater Treatment Plant (AWWTP).	Provide emergency electric power when utility power (PP&L) is not available

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Plum Street Railroad Underpass (CSS conveyance issue/ Manheim Township MS4 runoff to City's CSS) Since pipe maintenance work completed in 2024, no issues with past few storms but they were of lower magnitude.	Solutions include additional investigations, engineering, infrastructure upgrades. Potential partnerships with Amtrak and Manheim Township.	Flooding

Problem	Solution	Hazard(s) Addressed
Fairview Avenue/New Danville Pike/Prince (CSO Outfall 002 pipe restrictions)	Solutions include additional investigations, engineering, infrastructure upgrades. Potential partnerships with Lancaster Township. Water Street Sewer Separation Phases 2-3 need final designs and construction funds, will help alleviate restrictions.	Flooding
North Broad/Lehigh Avenue (CSS downstream conveyance bottleneck)	City's Broad St Disconnection project is in preliminary design now to provide stormwater storage capacity through an existing stormwater storage bed that can receive over 9 acres of existing impervious and partially bypass CSS.	Flooding
Steel Way/Manheim Pike (MS4 conveyance bottleneck and outfall restriction)	Solutions include additional investigations, engineering, gray and green infrastructure upgrades.	Flooding
Hershey Avenue/Wabank Road (MS4 conveyance restriction at outfall)	Work was done in 2023 to remove gravel at the outfall creating conveyance restrictions. Not aware of any issue since that time. Solutions include additional investigations, engineering, infrastructure upgrades.	Flooding
AWWTP - Conveyance bottleneck due to headwall at unnamed tributary to the Conestoga River and the capacity of the 78" diameter wastewater plant outfall (discharge) pipe	FEMA grant obtained for remediation project design. Additional funding for construction will be needed.	Flooding

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Repetitive loss along Conestoga River particularly in Conestoga Heights, Engleside neighborhoods	Develop a repetitive loss mitigation plan to fully analyze the long-term impacts of mitigation	Flooding

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Lancaster Water Service Resilience in the Susquehanna Plant Service Area	Add new Susquehanna Water Raw Water and Finished Water Transmission Mains	Harden Infrastructure
Lancaster Water Service Reliance and PFAS Compliance for the Conestoga Water Treatment Plant	Water Transmission Main from the Susquehanna River to the Conestoga Water Treatment Plant	Utility Intteruption, Drought

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Need points of distribution during infectious disease/pandemic response or other critical service provision for socially vulnerable and underserved communities, including older adults, people living with disabilities, and people with limited English proficiency	Identify community-based points of distribution with trusted partners, utilizing the CDC's Social Vulnerability Index, census data, and other planning tools to ensure accessible and equitable service delivery locations.	Pandemic and Infectious Disease
Mass sheltering of individuals with substance use disorder would present challenges and health risks for individuals experiencing withdrawal from drugs and alcohol.	Planning efforts to ensure medically appropriate accommodations for people with substance use disorder to have access to medically assisted treatment and medications mitigate health risks and aid people experiencing withdrawal. Coordinate cooperation agreements with LEMSA and LGH Street Medicine.	Substance Use Disorder

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Radon exposure and other environmental hazards in residential settings	Providing radon testing and mitigation through Healthy Homes Program to low- to moderate-income households most at risk. All City-funded housing rehabilitation projects will be tested for radon levels as part of the environmental review.	Radon Exposure
Illicit drug supplies that are adulterated with other known or unknown substances that increase risk of death or injury	Improve interagency communications to readily share up-to-date information with public safety/first responders. Ensure access and protocols for laboratory testing of illicit drug samples.	Substance Use Disorder

Problem	Solution	Hazard(s) Addressed
Toxic/hazardous substances get released with the potential for exposure. Determining level of threat and exposure to residents in proximity, and how to appropriately communicate risks.	Continue implementing public emergency alert system. Develop interdepartmental workgroup to facilitate informed communications about hazardous substances, level of exposure, risks, and what residents should do to remain safe. Develop other protocols as needed to assess individuals that have been exposed.	Hazardous Materials Releases
Wildfires in the region create smoke and compromise air quality, creating health risks for the public especially those with respiratory conditions.	Develop a communications plan to inform residents about air quality impacts. Facilitate the provision of respiratory filters/masks to vulnerable populations during activities that increase exposure (i.e. travel to appointments/services, etc.)	Wildfire
Invasive plants and insects (i.e. spotted lanternfly, disease vectors, etc.) that pose a threat to agriculture, local plants and wildlife, or public health	Partner with Penn State Extension and other agencies to determine appropriate interventions that promote environmental health. Develop communication plans to disseminate guidance to the public.	Invasive Species

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Combined Sewer Overflows (CSOs) in the wastewater conveyance system	Sewer separation, expanded treatment and/or storage capacity. Long Term Control Plan in development to address CSOs. Funding constraints exist.	Utility interruption

Lancaster Township

Hazard Identification and Risk Evaluation Worksheet

Name: BRETT FASSNACHT Title: EMC

Jurisdiction: LANCASTER TOWNSHIP Email: BFASSNACHT44@GMAIL.COM

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	I	FLASH FLOOD
Hailstorms	NC	
Invasive Species	I	LANTERN FLIES
Pandemic	I	COVID
Radon Exposure	NC	RADON IS STILL PRESENT
Subsidence and Sinkholes	NC	SINKHOLES DO HAPPEN
Tornado and Windstorm	I	SMALL TORNADOS
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	STILL STEADY
Utility Interruption	I	MORE GAS LEAKS

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☑ Extreme Temperature
- ☑ Hurricane, Tropical Storm, Nor'easter
- ☑ Landslide
- ☑ Lightning Strike

Human-Caused

- ☑ Building and Structure Collapse
- ☑ Civil Disturbance
- ☑ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☑ Mass Food/Animal Feed Contamination
- ☑ Opioid Addiction
- ☑ Terrorism
- ☑ Urban Fire/Explosion

Additional Comments:

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Brett Fassnacht

Title: Emergency Management Coordinator

Jurisdiction: Lancaster Twp

Email: bfassnacht44@gmail.com

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective	2.6 Municipalities should consider hiring a full-time Emergency Management Coordinator that can work on all of these initiatives to increase prevention, protection, mitigation, response, and recovery efforts. Regionalization of EMAs may help with salary/benefits cost.	
Objective		
Objective		

Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective	3.4 Fire departments should consider hiring part-time career staffing as the number of volunteers continues to decline. Follow NFPA guidelines for response times and minimum staffing requirements.	
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress / Unknown	In Progress / Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.	X					
LC-3	Action 3	Elevate structures at risk of flooding.	X					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	X					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.					X	No Rail
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	X					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	X					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	X					
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.	X					

Existing Mitigation Action			Status					Review Comments
			No Progress / Unknown	In Progress / Not Yet Complete	Continuous	Completed	Discontinued	
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.			X			
LC-5	Action 11	Remove any dilapidated or structurally unsound dams that pose a flooding threat to the community.					X	No Dams
LancT-1	Action 12	Protect the Lancaster City Advanced WWTP to the 0.2% annual chance flood level.	X					
LancT-2	Action 13	Protect Wastewater Pump #136 to the 0.2% annual chance flood level.	X					
LancT-3	Action 14	Protect Wastewater Pump #148 to the 0.2% annual chance flood level.	X					
LancT-4	Action 15	Protect Wastewater Pump #168 to the 0.2% annual chance flood level.	X					
LancT-5	Action 16	Protect Wastewater Pump #169 to the 0.2% annual chance flood level.	X					

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Brett Fassnacht **Title:** Emergency Management Coordinator

Jurisdiction: Lancaster Township, Pennsylvania **Email:** Bfassnacht44@gmail.com

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	YES	Copies are maintained by the Planning and Zoning Department and available on request.
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	YES	Last adoption was March 29, 2016
c. Does the municipality support requests for map updates?	If yes, specify how.	YES	
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	YES	We would, but have not had any such information to share.
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	NO	
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	N/A	We have not had any changes

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	YES	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	YES	Planning and Zoning Department/ Engineering Department
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	YES	Planning and Zoning Department/ Engineering Department
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	YES	Planning and Zoning Department/ Engineering Department
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	YES	Planning and Zoning Department/ Engineering Department
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	YES	
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	NO	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	NO	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	NO	
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	NO	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	No
Is the floodplain management an auxiliary function?	Community FPA	Yes of the Zoning officer and Engineer
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	
What are the barriers to running an effective NFIP program in the community?	Community FPA	
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	I do not know
Are there any outstanding compliance issues (i.e., current violations)?		none
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	?
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	?
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	?
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	?
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	?
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	?
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	?
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	?
What categories and activities provide CRS points and how can the class be improved?		?
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	?

Capability Assessment Survey

Name: Brett Fassnacht **Title:** Emergency Management Coordinator

Jurisdiction: Lancaster Township, Pennsylvania **Email:** Bfassnacht44@gmail.com

Phone Number: 717-823-0189

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan					
Emergency Operations Plan	**X**	**7/14/2003**		**Emergency Management Coordinator**	
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan					
NFIP					
NFIP – Community Rating System					
Floodplain Regulations					
Floodplain Management Plan	**X**	**3/29/2016**		**Planning & Zoning Township Engineer**	

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Zoning Regulations	X	8/20/2012		Planning & Zoning	
Subdivision Regulations	X	8/20/2012		Planning & Zoning	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	X	4/18/2006		Lancaster Inter-municipal Committee	
Open Space Management Plan (or Parks/Rec or Greenways Plan)	X	4/18/2006		Lancaster Inter-municipal Committee	
Stormwater Management Plan / Ordinance	X	9/15/2014		Township Engineer	Updated 6/10/2019, revised Minimum Control Measures (MCM) 1 through 5
Natural Resource Protection Plan	X	4/18/2006		Lancaster Inter-municipal Committee	
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan	X	4/18/2006		Lancaster Inter-municipal Committee	
Farmland Preservation					
Building Code	X	8/20/2012		Planning & Zoning	
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X		**Planning/Zoning Officer** (Lancaster Twp) **Township Engineer** (Lancaster Twp)	
Planners or engineers (with natural and/or human caused hazards knowledge)	X		**Planning/Zoning Officer** (Lancaster Twp) **Township Engineer** (Lancaster Twp)	
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		**Planning/Zoning Officer** (Lancaster Twp) **Township Engineer** (Lancaster Twp) **Building/Code Inspector** (W. Lampeter Twp)	
Emergency Manager	X		**Emergency Management Coordinator** (Lancaster Twp Office of Emergency Management)	
Floodplain Manager				
Land Surveyors				
Scientists or staff familiar with the hazards of the community				
Personnel skilled in GIS and/or FEMA's HAZUS program				
Grant writers or fiscal staff to handle large or complex grants				
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming				
Community Development Block Grants (CDBG)	**X**		**Lancaster County Community Development Block Grant Funds Steering Committee**	
Special Purpose Taxes				
Gas / Electric Utility Fees		**X**		
Water / Sewer Fees		**X**		
Stormwater Utility Fees		**X**		
Development Impact Fees				
General Obligation, Revenue, and/or Special Tax Bonds				
Partnering Arrangements or Intergovernmental Agreements				
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification				
StormReady certification				
Natural disaster or safety related school programs	**X**		**Lancaster Township Fire Department**	**Fire Department has programs they present to schools**
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	**X**		**Lancaster Township** **Lancaster Township Fire Department**	**Lancaster Township Website and newsletters provide public information to residents** **Fire department provides information through a variety of programs**
Public-private partnership initiatives addressing disaster-related issues				
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.				
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability	**X**		
Administrative and Technical Capability	**X**		
Financial Capability	**X**		
Education and Outreach	**X**		

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com) by Friday, November 15

Jurisdiction: Lancaster Township

Name/Title of Individual Completing Worksheet: Brett Fassnacht

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Yes	
Dam Failure	Low	Yes	
Drought	Medium	Yes	
Earthquake	Low	Yes	
Environmental Hazards: Gas and Pipeline	Medium	Yes	
Environmental Hazards: Hazardous Materials	Medium	Yes	
Flood, Flash Flood, Ice Jam	High	Yes	
Hailstorm	Medium	Yes	
Invasive Species	Medium	Yes	
Nuclear Incident	Medium	Yes	
Pandemic and Infectious Disease	Medium	Yes	
Radon Exposure	High	Yes	
Subsidence, Sinkhole	High	Yes	
Substance Use Disorder and Mental Health	Medium	Yes	
Terrorism	Medium	Yes	
Tornado, Windstorm	Medium	Yes	
Transportation Accident	High	Yes	
Utility Interruption	High	Yes	
Wildfire	Medium	Yes	
Winter Storm	Medium	Yes	

Leacock Township

Hazard Identification and Risk Evaluation Worksheet

Name: Christopher M. Slaymaker **Title:** Township Manager

Jurisdiction: Leacock Township **Email:** cslaymaker@leacocktwp.com

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	NC	
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Capability Assessment Survey

Name: Christopher M. Slaymaker **Title:** Township Manager

Jurisdiction: Leacock Township **Email:** cslaymaker@leacocktwp.com

Phone Number: 717-768-8585

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan					
Emergency Operations Plan	**X**	**1/1/15**		**Leacock Township**	
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan					
NFIP					
NFIP – Community Rating System					
Floodplain Regulations					
Floodplain Management Plan					
Zoning Regulations	**X**	**6/17/24**		**Leacock Township**	

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Subdivision Regulations	**X**			**Leacock Township**	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	**X**			**Leacock Township**	
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance	**X**			**Leacock Township**	
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan	**X**			**Leacock Township**	
Farmland Preservation					
Building Code	**X**			**Leacock Township**	
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)				
Planners or engineers (with natural and/or human caused hazards knowledge)				
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		Leacock Township	
Emergency Manager	X		Leacock Township	
Floodplain Manager				
Land Surveyors				
Scientists or staff familiar with the hazards of the community				
Personnel skilled in GIS and/or FEMA's HAZUS program				
Grant writers or fiscal staff to handle large or complex grants				
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming				
Community Development Block Grants (CDBG)	X		Leacock Township	
Special Purpose Taxes				
Gas / Electric Utility Fees				
Water / Sewer Fees	X		Leacock Township	
Stormwater Utility Fees	X		Leacock Township	
Development Impact Fees				
General Obligation, Revenue, and/or Special Tax Bonds	X		Leacock Township	
Partnering Arrangements or Intergovernmental Agreements	X		Leacock Township	
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification				
StormReady certification				
Natural disaster or safety related school programs				
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)				
Public-private partnership initiatives addressing disaster-related issues				
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	X		Local Fire Companies	
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability		X	
Administrative and Technical Capability		X	
Financial Capability		X	
Education and Outreach		X	

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Christopher M. Slaymaker **Title:** Township Manager

Jurisdiction: Leacock Township **Email:** cslaymaker@leacocktwp.com

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	NO	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	NO	
c. Does the municipality support requests for map updates?	If yes, specify how.	YES	Work with County GIS
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	NO	
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	NO	
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	NO	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	NO	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	NO	
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	NO	
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	YES	ZONING AND PLANNING
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	NO	
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	N/A	
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	N/A	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	NO	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	NO	
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	NO	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	N/A
Is the floodplain management an auxiliary function?	Community FPA	N/A
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	N/A
What are the barriers to running an effective NFIP program in the community?	Community FPA	N/A
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	N/A
Are there any outstanding compliance issues (i.e., current violations)?		N/A
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	N/A
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	N/A
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	N/A
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	N/A
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	N/A
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	N/A
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	N/A
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	N/A
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	N/A
What categories and activities provide CRS points and how can the class be improved?		N/A
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	N/A

Mitigation Strategy 5-Year Mitigation Plan Review

Name: _____ Title: _____

Jurisdiction: Leacock Twp Email: _____

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.	X					
LC-3	Action 3	Elevate structures at risk of flooding.	X					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	X					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	X					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	X					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	X					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	X					
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.		X				
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local	X					

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
		regulations to protect new structures constructed in hazard-prone areas.						
LeaT-1	Action 11	Protect Wastewater Pump #27 to the 0.2% annual chance flood level.		X				

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com) by Friday, November 15

Jurisdiction: Leacock Township

Name/Title of Individual Completing Worksheet: Jim Houser

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Y	SCADA on the water & sewer plants
Dam Failure	Low	N	N/A
Drought	Medium	Y	Public relies on a ground water system as a supply
Earthquake	Low	N	N/A
Environmental Hazards: Gas and Pipeline	Medium	N	N/A
Environmental Hazards: Hazardous Materials	Medium	Y	Protection of said public water system and public wells
Flood, Flash Flood, Ice Jam	High	N	N/A
Hailstorm	Medium	N	N/A
Invasive Species	Medium	N	N/A
Nuclear Incident	Medium	Y	Protection of the public
Pandemic and Infectious Disease	Medium	N	N/A
Radon Exposure	High	N	N/A
Subsidence, Sinkhole	High	N	N/A
Substance Use Disorder and Mental Health	Medium	N	N/A
Terrorism	Medium	N	N/A
Tornado, Windstorm	Medium	Y	Infrastructure damage for the utilities
Transportation Accident	High	N	N/A
Utility Interruption	High	Y	Power issues, especially for the utilities
Wildfire	Medium	N	N/A
Winter Storm	Medium	N	N/A

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Leacock Township

Name/Title of Individual Completing Worksheet: James Houser EMC

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Staff training to understand the response and mitigation process.	Provide training for the Public Works Staff	This would address all of our listed hazards, Cyber, Drought, Environmental, Hazardous, Nuclear, storm and utility disruption situations

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Critical Pump Stations without back-up power supply	Budget for the installation of those critical pump stations throughout the township	Utility Disruption

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
N/A	N/A	N/A

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
N/A	N/A	N/A

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
N/A	N/A	N/A

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed
N/A	N/A	N/A

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
The Township / Authority needs a means of Public Notifications.	Develop, apply, and maintain a Smart911 Notification System	Notification of the following, Cyber, Drought, Environmental, Nuclear and storm events

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed
N/A	N/A	N/A

Lititz Borough

Hazard Identification and Risk Evaluation Worksheet

Name: Duane Ober **Title:** Emergency Mgt. Coordinator

Jurisdiction: Lititz Borough - 2024 **Email:** dober@warwicktownship.org

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	**NC**	
Earthquake	**NC**	
Flood, Flash Flood, Ice Jam	**I**	**Heavy rains overflow stream banks and / or create standing water on roadways, closing roads**
Hailstorms	**NC**	
Invasive Species	**NC**	
Pandemic	**I**	**COVID-related issues, planning for future risks**
Radon Exposure	**NC**	
Subsidence and Sinkholes	**I**	**Still a local concern because of geology**
Tornado and Windstorm	**I**	**Windstorms are becoming more frequent, causing downed power lines and trees on roadways**
Wildfire	**NC**	
Winter Storm	**D**	**Winters have been milder in recent years, but still need to be prepared**
Human-Caused Hazards		
Dam Failure	**NC**	
Environmental Hazards (Hazmat)	**NC**	

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Nuclear Incidents	**NC**	
Transportation Accidents	**I**	**Some intersections continue to be areas of concern; need to monitor**
Utility Interruption	**NC**	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion - NO
- ☐ Extreme Temperature - NO
- ■ Hurricane, Tropical Storm, Nor'easter - YES
- ☐ Landslide - NO
- ■ Lightning Strike - YES

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ■ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ■ Environmental Hazards – Gas and Liquid Pipelines **(Increase in natural gas repairs and installation in the region)**
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ **Opioid Addiction**
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Water treatment plant is using SCADA to have remote access to controlling, monitoring, and analyzing operations in the event of an emergency or cyberterrorism.

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Duane Ober **Title:** Emergency Management Coordinator

Jurisdiction: Lititz Borough **Email:** dober@warwicktownship.org

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	**YES**	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	**YES**	
c. Does the municipality support requests for map updates?	If yes, specify how.	**N/A**	**Haven't had any in recent years**
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	**N/A**	
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	**NO**	
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	**N/A**	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.		

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	**YES**	**Code & Zoning Officer**
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	**YES**	**Code & Zoning Officer**
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	**YES**	**Code & Zoning Officer**
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	**YES**	**Code & Zoning Officer**
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	**YES**	**Through Code Enforcement**
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	**YES**	**Drafted the ordinance that FEMA provided in 2016**

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	**NO**	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	**NO**	
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	**NO**	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	**Yes – Zoning Officer**
Is the floodplain management an auxiliary function?	Community FPA	**Yes**
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	**Through permit review, education, and enforcement**
What are the barriers to running an effective NFIP program in the community?	Community FPA	**N/A**
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	**YES**
Are there any outstanding compliance issues (i.e., current violations)?		**NO**
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book N/A

Is a CAV or CAC scheduled or needed?		**NO**
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	**Digital**
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	**Yes – adopted the FEMA ordinance**
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	**Zoning officer reviews and/or Zoning Hearing Board**
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	**N/A**
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	**N/A**
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	**N/A**
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	**N/A**
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	**NO**
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	**N/A**
What categories and activities provide CRS points and how can the class be improved?		**N/A**
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	**N/A**

Capability Assessment Survey

Name: Duane Ober **Title:** Emergency Management Coordinator

Jurisdiction: Lititz Borough **Email:** dober@warwicktownship.org

Phone Number: (717) 224-0114

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**X**	**1/29/2019**		**County EMA**	**Under review in 2024**
Emergency Operations Plan	**X**	**1/28/2020**		**Lititz Borough EMA**	**Under review for Promulgation in 2024**
Disaster Recovery Plan					**No plan**
Evacuation Plan					**No plan**
Continuity of Operations Plan			**X**		**Under review**
NFIP	**X**	**4/5/2016**		**FEMA**	**New maps developed by FEMA**
NFIP – Community Rating System	**X**	**4/5/2016**		**FEMA**	**New maps developed by FEMA**
Floodplain Regulations	**X**	**3/29/2016**		**Boro Council**	**Effective 4/5/2016**
Floodplain Management Plan	**X**	**6/29/2021**		**Lititz Run Watershed Alliance**	**Lititz Run Watershed Action Plan – deals with stream restoration and flooding mitigation**
Zoning Regulations	**X**	**4/27/2010**		**Boro Council**	**Last amended 5/30/2023**

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Subdivision Regulations	X	2/11/2010		Boro Council	Last amended 7/26/2022
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	X	4/24/2018	X	Boro Staff	Forge the Future 2022 was adopted in 2018. Strengthening Communities 2030 to be adopted in 2024.
Open Space Management Plan (or Parks/Rec or Greenways Plan)	X	March 2002		Bldg. and Grounds Committee	Regional Final Plan Adopted
Stormwater Management Plan / Ordinance	X	3/26/2019		MS4 Committee	
Natural Resource Protection Plan					N/A
Capital Improvement Plan	X	2023		Finance Committee	Capital Plans for fire, police, public works, WWTP, WTP, etc.
Economic Development Plan	X	2008	X	Venture Lititz & Borough Council	Downtown plan being reviewed
Historic Preservation Plan	X	2010		Lititz Borough Staff	Incorporated into Zoning
Farmland Preservation		N/A			
Building Code	X	12/27/16			Uniform Construction Code
Fire Code	X				Under the Building Code
Other					

2. Administrative and Technical Capability: Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	**X**		**Managing Director of Planning and Development**	
Planners or engineers (with natural and/or human caused hazards knowledge)	**X**		**Managing Director of Planning and Development**	
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	**X**		**Borough Engineer and Code Administrators (Bldg. codes)**	
Emergency Manager	**X**		**Lititz Borough EMA**	
Floodplain Manager	**X**		**Code Enforcement Officer**	
Land Surveyors			**N/A**	
Scientists or staff familiar with the hazards of the community	**X**		**Public Works, Planner, Boro staff, and more**	
Personnel skilled in GIS and/or FEMA's HAZUS program	**X**		**Environmental Coordinator**	
Grant writers or fiscal staff to handle large or complex grants	**X**		**Managing Director of Planning and Environmental Coordinator**	
Other				

3. Financial Capability: Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources *for hazard mitigation purposes* (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming	**X**		**Borough Staff**	
Community Development Block Grants (CDBG)		**X**		
Special Purpose Taxes		**X**		
Gas / Electric Utility Fees		**X**		
Water / Sewer Fees	**X**		**Lititz Borough Staff**	**Not used for hazard mitigation except when they impact the system (sinkholes)**
Stormwater Utility Fees	**X**		**Lititz Borough Staff**	
Development Impact Fees		**X**		
General Obligation, Revenue, and/or Special Tax Bonds	**X**			**Could issue a bond if needed**
Partnering Arrangements or Intergovernmental Agreements		**X**	**Warwick Emergency Services Commission (WESC), Lititz Run Watershed Alliance (LRWA), and water and sewer agreements with Warwick Township**	
Other				

4. Education and Outreach: Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		**X**		**N/A**
StormReady certification	**X**		**Lancaster County EMA (LEMA)**	
Natural disaster or safety related school programs		**X**		**Led by Warwick School District**
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	**X**		**Warwick Emergency Services Commission (WESC)**	**Community safety education and training**
Public-private partnership initiatives addressing disaster-related issues		**X**		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	**X**		**Warwick Emergency Services Commission (WESC); Lititz Fire Company; Lititz Borough Police Department; Warwick Ambulance; Warwick HUB**	**Emergency Services & Social Services**
Other				

5. Self-Assessment of Capability: Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "X" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability			**X**
Administrative and Technical Capability		**X**	
Financial Capability			**X**
Education and Outreach	**X**		

Mitigation Strategy 5-Year Mitigation Plan Review

Name: **Duane Ober** Title: **Emergency Management Coordinator**

Jurisdiction: **Lititz Borough** Email: **dober@warwicktownship.org**

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	**Led / influenced by FEMA and local zoning requirements**
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	**Mission and directives of Warwick Emergency Services Commission (WESC), a regional function of Warwick Township, Lititz Borough, and Elizabeth Township; Lititz Fire Company; Lititz Borough Police Dept.; Warwick Ambulance**
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	**Objectives being handled by WESC, Lititz Borough Police Department, Lititz Fire Company, Warwick Ambulance, Lititz Borough office staff, and Inframark, through public outreach, including in-person activities, newsletters, social media, websites, and more.**
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal	**Reduce impact of storms or natural disasters on residents and businesses**	
Objective	Evaluate ways to cope with long-term power outages	**Identify areas of concern to local utility companies to prevent loss of service**
Objective	Continue to evaluate areas prone to flooding	
Objective	Evaluate infrastructure impact from flooding (water supply, wastewater facility, etc.)	

Goal	**Maintaining guaranteed fuel supply for emergency generators for water treatment plant and wastewater treatment plant**	
Objective	Secure MOU's with fuel supplier for emergency needs and access	**Concern of guaranteeing power supply to run water and wastewater plants in event of long-term power outage.**
Objective	Consider solar power for primary or emergency power source	
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.	X					
LC-3	Action 3	Elevate structures at risk of flooding.	X					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	X					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	X					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	X					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	X					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.		X				
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.		X				

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.			X			
LC-6	Action 11	Work with hazardous materials facilities in the floodplain to floodproof structures up to the 0.2% annual chance flood level.	X					
LitB-1	Action 12	Protect the Warwick EMS facility to the 0.2% annual chance flood level.	X					
LitB-2	Action 13	Protect Wastewater Pump #72 to the 0.2% annual chance flood level.	X					***What's the goal of these Actions? Protect the pumps? Water table can't be controlled.***
LitB-3	Action 14	Protect Well #74 to the 0.2% annual chance flood level.	X					
LitB-4	Action 15	Protect Well #75 to the 0.2% annual chance flood level.	X					

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com) by Friday, November 15

Jurisdiction: Lititz Borough

Name/Title of Individual Completing Worksheet: Duane Ober, Emergency Mgt. Coordinator

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Yes	
Dam Failure	Low	Yes	
Drought	Medium	Yes	
Earthquake	Low	Yes	
Environmental Hazards: Gas and Pipeline	Medium	Yes	
Environmental Hazards: Hazardous Materials	Medium	Yes	
Flood, Flash Flood, Ice Jam	High	Yes	
Hailstorm	Medium	Yes	
Invasive Species	Medium	Yes	
Nuclear Incident	Medium	No - Low	Believe we're outside impacted area
Pandemic and Infectious Disease	Medium	Yes	
Radon Exposure	High	Yes	
Subsidence, Sinkhole	High	Yes	
Substance Use Disorder and Mental Health	Medium	Yes	
Terrorism	Medium	Yes	
Tornado, Windstorm	Medium	Yes	
Transportation Accident	High	Yes	
Utility Interruption	High	Yes	
Wildfire	Medium	No - Low	Very little area that could be impacted by this
Winter Storm	Medium	Yes	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Lititz Borough and Warwick Township

Name/Title of Individual Completing Worksheet: Duane Ober, EMC

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

**** These are mitigation actions that COULD be implemented, either at the municipal level or at the county level. These are ideas for action, not necessarily actions being taken at our municipal level. ****

Cyber Incidents: ***Action Plan***: Implement a municipal cybersecurity training program for staff and secure funding to upgrade cybersecurity infrastructure. Partner with state agencies and private cybersecurity firms for audits and workshops.

Dam Failure: ***Action Plan***: Collaborate with neighboring municipalities to evaluate regional dam safety and identify shared risks. Apply for state and federal grants to support infrastructure upgrades if applicable in surrounding areas.

Drought: ***Action Plan***: Expand drought resilience by investing in additional water storage facilities and implementing rainwater harvesting projects. Conduct public campaigns to promote water conservation practices.

Earthquake: ***Action Plan****:* Conduct a seismic risk assessment for critical infrastructure and prioritize retrofitting projects. Launch community-wide earthquake preparedness drills in collaboration with local emergency management teams.

Gas and Liquid Pipelines: ***Action Plan****:* Establish a pipeline safety task force in coordination with UGI to ensure regular assessments and response planning. Conduct joint training sessions for first responders and pipeline operators.

Hazardous Materials Releases: ***Action Plan****:* Develop a regional hazardous materials response framework that includes shared resources and training programs. Seek grants for specialized equipment and secure contracts for hazardous waste disposal.

Flood/Flash Flood/Ice Jams: ***Action Plan****:* Enhance stormwater infrastructure with green solutions like permeable pavements and retention basins. Expand public outreach on the benefits of flood insurance and preparedness measures.

Hailstorms: ***Action Plan****:* Create a grant or rebate program to help homeowners invest in hail-resistant building materials. Develop a public awareness campaign on how to protect property during hailstorms.

Invasive Species: ***Action Plan****:* Form regional partnerships to monitor and combat invasive species. Apply for environmental grants to fund eradication programs and conduct community workshops on invasive species identification and prevention.

Nuclear Incidents: ***Action Plan****:* Upgrade radiation monitoring systems and strengthen public education efforts on nuclear safety. Conduct regular evacuation drills in collaboration with neighboring jurisdictions.

Pandemic and Infectious Disease: ***Action Plan****:* Establish a local stockpile of medical supplies and PPE. Develop partnerships with regional health providers for resource sharing and expand public health surveillance systems to detect outbreaks early.

Radon Exposure: ***Action Plan****:* Offer discounted radon testing kits to residents and provide financial assistance for mitigation system installations in high-risk homes. Collaborate with state agencies to raise awareness.

Subsidence/Sinkholes: ***Action Plan****:* Invest in advanced ground monitoring technology to detect potential sinkholes. Develop zoning regulations to minimize construction in high-risk areas and conduct educational sessions for affected communities.

Substance Use Disorder: ***Action Plan****:* Secure federal funding to expand addiction recovery programs and implement a stigma-reduction campaign. Increase the availability of support groups and treatment centers in the community.

Terrorism: ***Action Plan****:* Conduct joint counter-terrorism training sessions with local, state, and federal agencies. Implement a public awareness campaign encouraging the community to report suspicious activities.

Tornado/Windstorm: ***Action Plan****:* Build storm shelters in vulnerable areas and provide financial incentives for constructing storm-resistant buildings. Expand community education on tornado safety protocols.

Transportation Accidents: ***Action Plan****:* Upgrade traffic control systems in high-risk areas and install additional signage. Implement public campaigns on safe driving practices, particularly near accident-prone locations.

Utility Interruption: ***Action Plan****:* Modernize grid infrastructure to improve reliability and promote renewable energy sources. Partner with utility companies to secure funding for battery storage solutions and backup power systems.

Wildfire: ***Action Plan****:* Develop firebreaks in at-risk areas and organize public workshops on wildfire prevention and safety. Seek funding for advanced firefighting equipment and training programs.

Winter Storm: ***Action Plan****:* Establish public-private partnerships to improve snow removal capabilities and expand community education on winter preparedness. Invest in new equipment for snow clearing and de-icing operations.

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
None identified		

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Backup power at water treatment plant and wastewater treatment plant	Evaluate condition of backup power supplies and plan for upgrades or replacements	

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Identify high risk areas	Evaluate and monitor conditions during heavy rain conditions	

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
None identified		

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
None identified		

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed
None identified		

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Education about use of Regroup	Promotion of how and why to register for Regroup	Emergency communication with community

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed
None Identified		

Little Britain Township

Hazard Identification and Risk Evaluation Worksheet

Name: Ron Caldwell **Title:** EMC

Jurisdiction: Little Britain Twp **Email:** oakhillhtl@prodigy.net

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	I	Lantern Fly's
Pandemic		
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	D	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	I	Personal observation no data to prove it
Utility Interruption	NC	Less Large scale storage Localized storm damage

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Capability Assessment Survey

Name: Ron Criswell **Title:** EMC

Jurisdiction: Little Britain Twp **Email:** ~~oakhillht1~~ oakhillht1@prodigy.net

Phone Number: 717-278-8128

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan					
Emergency Operations Plan	X	2-2022		County EMA	Developed for Rad Response
Disaster Recovery Plan	X	"		" "	" " " "
Evacuation Plan	X	2-2022		County EMA	Developed for Rad Response "Peach Bottom"
Continuity of Operations Plan			X		
NFIP					
NFIP – Community Rating System					
Floodplain Regulations	X				
Floodplain Management Plan	X				
Zoning Regulations	X	12/10/2019		Planning Commision/ Supervisors	Zoning Officer Enforces

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
Subdivision Regulations	X	3-29-2016		Planning Comition/Supervisors	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)			X		
Open Space Management Plan (or Parks/Rec or Greenways Plan)	—	—	—		
Stormwater Management Plan / Ordinance	X	5-2014		Engineer & Zoning Officer	
Natural Resource Protection Plan	—	—	—		
Capital Improvement Plan	—	—	—		
Economic Development Plan	—	—	—		
Historic Preservation Plan	—	—	—		
Farmland Preservation	X			County Ag Preserve Board	
Building Code	X			Penn State Code	
Fire Code		X			
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X		Light-Heigel associates	Ed Fisher reviews all land development/Subdivision Plans
Planners or engineers (with natural and/or human caused hazards knowledge)		X		
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		Commowealth Code Enforcement	Peter Kingsley Code Inspector
Emergency Manager	X		Little Britain Twp EMC	
Floodplain Manager	X		Zoning Officer	
Land Surveyors		X		
Scientists or staff familiar with the hazards of the community	X		Various	
Personnel skilled in GIS and/or FEMA's HAZUS program	X		Zoning Officer	
Grant writers or fiscal staff to handle large or complex grants		X		
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming		X		
Community Development Block Grants (CDBG)		X		
Special Purpose Taxes		X		
Gas / Electric Utility Fees		X		
Water / Sewer Fees		X		
Stormwater Utility Fees		X		
Development Impact Fees		X		
General Obligation, Revenue, and/or Special Tax Bonds		X		
Partnering Arrangements or Intergovernmental Agreements	X		Supervisors	
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification		X		
Natural disaster or safety related school programs		X		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)		X		
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		X		
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability			
Administrative and Technical Capability			
Financial Capability			
Education and Outreach			

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Ron Criswell Title: EMC

Jurisdiction: Little Britain Twp Email: oakhill1b1@prodigy.net

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	yes X	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	N/A	
c. Does the municipality support requests for map updates?	If yes, specify how.		would participate if needed
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.		
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.		
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.		

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.		

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	yes	
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	yes	
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	yes	
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	yes	
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	yes	
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	yes	Prohibit New Structures in SFHA

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.		

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	NO	
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	NO	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	Source of Information	Comments
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	
Is the floodplain management an auxiliary function?	Community FPA	Zoning Officer checks during plan submition
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	
What are the barriers to running an effective NFIP program in the community?	Community FPA	
Compliance History		
Topic	Source of Information	Comments
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	
Are there any outstanding compliance issues (i.e., current violations)?		
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	Paper
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	N/A
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	Engineer Review, Planning com Review, Supervisor decision
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	N/A
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	N/A
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Ron Criswell Title: EMC

Jurisdiction: Little Britain Twp Email: oakhillht@Prodigy.net

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	Zoning Ordinance Addresses Safety Issues by limiting access + development where hazards are or would be caused.
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goals and Objectives		Comments
Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	would add appropriate articles To Newsletter if/when available
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	**Educate property owners in hazard risk areas regarding their risks and the precautions they can take.**	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	**Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).**	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal	
Objective	
Objective	
Objective	

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.	X					
LC-3	Action 3	Elevate structures at risk of flooding.	X					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	X					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	X					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	X					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	X					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	X					
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.	X					
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.			X			

Manheim Borough

Hazard Identification and Risk Evaluation Worksheet

Name: Jim Williams **Title:** Interim Borough Manager

Jurisdiction: Manheim Borough **Email:** boroughmanager@manheimboro.org

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	NC	
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	D	Less Winter storms
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- x Extreme Temperature
- x Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- x Lightning Strike

Human-Caused

- x Building and Structure Collapse
- x Civil Disturbance
- x Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- x Mass Food/Animal Feed Contamination
- x Opioid Addiction
- x Terrorism
- x Urban Fire/Explosion

Additional Comments:

Capability Assessment Survey

Name: Jim Williams **Title:** Interim Borough Manager

Jurisdiction: Manheim Borough **Email:** Boroughmanager@manheimboro.org

Phone Number: 717-665-2461

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**X**	**2022**		**Lancaster Co**	
Emergency Operations Plan	**x**	**2022**			
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan					
NFIP	**x**				
NFIP – Community Rating System					
Floodplain Regulations	**x**	**2023**			
Floodplain Management Plan	**X**	**2023**			
Zoning Regulations	**x**	**2023**			

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Subdivision Regulations	x				
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	x				
Open Space Management Plan (or Parks/Rec or Greenways Plan)	x				
Stormwater Management Plan / Ordinance	x				
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation					
Building Code	x				
Fire Code	x				
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	x			
Planners or engineers (with natural and/or human caused hazards knowledge)		x		
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	x			
Emergency Manager	x			
Floodplain Manager	x			
Land Surveyors		x		
Scientists or staff familiar with the hazards of the community		x		
Personnel skilled in GIS and/or FEMA's HAZUS program		x		
Grant writers or fiscal staff to handle large or complex grants		x		
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming	x			
Community Development Block Grants (CDBG)	x			
Special Purpose Taxes	x			
Gas / Electric Utility Fees		x		
Water / Sewer Fees		x		
Stormwater Utility Fees		x		
Development Impact Fees		x		
General Obligation, Revenue, and/or Special Tax Bonds	x			
Partnering Arrangements or Intergovernmental Agreements	x			
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		x		
StormReady certification	x			
Natural disaster or safety related school programs		x		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	x			
Public-private partnership initiatives addressing disaster-related issues		x		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.				
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability		x	
Administrative and Technical Capability	x		
Financial Capability	x		
Education and Outreach		x	

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Jim Williams **Title:** Interim Borough Manager

Jurisdiction: Manheim Borough **Email:** Boroughmanager@manheimboro.org

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Y	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	Y	
c. Does the municipality support requests for map updates?	If yes, specify how.	Y	
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	Y	
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	Y	
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	Y	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.		

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	Y	
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	Y	
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Y	
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	Y	
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	Y	
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	Y	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	Y	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	Y	
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	N	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	
Is the floodplain management an auxiliary function?	Community FPA	
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	
What are the barriers to running an effective NFIP program in the community?	Community FPA	
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	
Are there any outstanding compliance issues (i.e., current violations)?		
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Jim Williams | Title: Interim Borough Manager

Jurisdiction: Manheim Borough | Email: boroughmanager@manheimboro.org

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.						
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.			x			
LC-3	Action 3	Elevate structures at risk of flooding.						
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.						
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.						
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.						
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.						
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.						
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.						
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local			x			

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
		regulations to protect new structures constructed in hazard-prone areas.						
ManhB-1	Action 11	Protect Electric Substation #42 to the 0.2% annual chance flood level.						
ManhB-2	Action 12	Protect Potable Pump #101 to the 0.2% annual chance flood level.						
ManhB-3	Action 13	Protect the Manheim FD station to the 0.2% annual chance flood level.						
ManhB-4	Action 14	Protect Wastewater Pump #200 to the 0.2% annual chance flood level.						
ManhB-5	Action 15	Protect Well #57 to the 0.2% annual chance flood level.						
ManhB-6	Action 16	Protect Well #58 to the 0.2% annual chance flood level.						

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com)

Jurisdiction: Manheim Borough

Name/Title of Individual Completing Worksheet: Joel Mutschler, Borough Manager

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Y	
Dam Failure	Low	Y	
Drought	Medium	Y	
Earthquake	Low	Y	
Environmental Hazards: Gas and Pipeline	Medium	Y	
Environmental Hazards: Hazardous Materials	Medium	Y	
Flood, Flash Flood, Ice Jam	High	Y	
Hailstorm	Medium	Y	
Invasive Species	Medium	Y	
Nuclear Incident	Medium	Y	
Pandemic and Infectious Disease	Medium	Y	
Radon Exposure	High	Y	
Subsidence, Sinkhole	High	Y	
Substance Use Disorder and Mental Health	Medium	Y	
Terrorism	Medium	Y	
Tornado, Windstorm	Medium	Y	
Transportation Accident	High	Y	
Utility Interruption	High	Y	
Wildfire	Medium	Y	
Winter Storm	Medium	Y	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Manheim Borough

Name/Title of Individual Completing Worksheet: Joel Mutschler, MPA, Borough Manager

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Mill Street in Manheim, PA, has been identified as an area prone to flooding, particularly within the 100-year floodplain. Repetitive loss properties in this area are at risk of continued damage, posing significant financial, safety, and infrastructure challenges for the borough. Repeated flooding events strain local resources, disrupt communities, and threaten public safety.	Mitigating flood risks on Mill Street and surrounding neighborhoods requires a comprehensive strategy incorporating property acquisition, elevation projects, and infrastructure upgrades. Developing a Repetitive Loss Mitigation Plan is also essential to address the broader impacts of mitigation efforts and ensure sustainable long-term solutions. These actions will reduce the borough's exposure to flood risks, protect public safety, and minimize recurring damages.	Flood/Flash Flood/Ice Jams

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Critical facilities and infrastructure in Manheim, PA, including Potable Pump #101, the Manheim Fire Department Station, and key roadways, are vulnerable to flooding. These hazards disrupt essential services, impede emergency response, and threaten community safety during hazard events. Existing stormwater systems are insufficient to manage increasing flood risks.	To enhance community resilience, implement targeted mitigation measures, including elevating critical facilities and roadways, floodproofing essential infrastructure, and upgrading stormwater management systems. Develop a comprehensive hazard mitigation plan to prioritize actions, secure funding, and ensure sustainable protection of lifelines and infrastructure in flood-prone areas.	Flood/Flash Flood/Ice Jams

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Certain socially vulnerable populations—including low-income households, elderly residents, and individuals with disabilities—face heightened risks during hazard events such as floods. These groups may lack adequate resources, mobility, or access to information, making it challenging for them to prepare for, respond to, and recover from disasters. This vulnerability is exacerbated by limited targeted outreach and support mechanisms tailored to their specific needs.	Implement accessible educational programs, inclusive communication channels, and neighborhood support networks to address their unique needs during hazard events. Provide tailored resources such as emergency kits, transportation, and shelters, and involve representatives from these groups in mitigation planning to ensure their needs are prioritized. This approach fosters equity and resilience while reducing the impacts of disasters on underserved populations.	Flood/Flash Flood/Ice Jams, Substance Use Disorder

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Manheim faces gaps in public awareness regarding hazard risks, preparedness measures, and emergency response strategies. Many residents lack knowledge about flooding risks, evacuation routes, and protective actions, reducing the community's overall resilience to disasters.	Develop and implement a comprehensive Public Education and Outreach Program to address awareness gaps, promote hazard preparedness, and improve community engagement. This program will include workshops, information dissemination via multiple platforms, and outreach campaigns tailored to local hazard risks. These efforts will empower residents to take proactive steps to protect themselves and their properties during hazard events.	All

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Manheim currently lacks a Substantial Damage Management Plan and a formal process for conducting substantial damage determinations following flood events. As a result, the municipality is unable to effectively regulate development within Special Flood Hazard Areas (SFHAs) or ensure compliance with National Flood Insurance Program (NFIP) requirements. This gap creates challenges in managing repairs to damaged buildings, determining market value, and issuing permits in a consistent and timely manner after a disaster.	Manheim will develop a Substantial Damage Management Plan, following the six-step process outlined in the 2021 "Developing a Substantial Damage Management Plan" guide. This plan will establish clear responsibilities for determining substantial damage, assessing market value, and managing permit approvals after disaster events. By implementing this plan, Manheim will enhance its capacity to enforce NFIP regulations, improve disaster recovery processes, and ensure compliance with local floodplain requirements, ultimately strengthening community resilience against flooding.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Manheim Township

Hazard Identification and Risk Evaluation Worksheet

Name: Scott Little **Title:** EMC/Fire Chief

Jurisdiction: Manheim Township **Email:** slittle@manheimtownship.org

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	I	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	NC	
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Capability Assessment Survey

Name: Scott Little **Title:** EMC/Fire Chief

Jurisdiction: Manheim Township **Email:** slittle@manheimtownship.org

Phone Number: 717-719-2320

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**X**			**MT EMA**	**Internal**
Emergency Operations Plan	**X**			**MT EMA**	**Internal**
Disaster Recovery Plan	**X**			**MT EMA**	**Internal**
Evacuation Plan	**X**			**MT EMA**	**Internal**
Continuity of Operations Plan	**X**			**MT EMA**	**Internal**
NFIP	**X**			**FEMA**	**Follow FEMA standards**
NFIP – Community Rating System	**X**			**FEMA**	**Follow FEMA standards**
Floodplain Regulations	**X**			**FEMA**	**Follow FEMA standards**
Floodplain Management Plan	**X**			**FEMA**	**Follow FEMA standards**
Zoning Regulations	**X**			**MT Planning and Zoning**	**www.manheimtownship.org**

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Subdivision Regulations	X			MT Planning and Zoning	www.manheimtownship.org
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	X			MT Planning and Zoning	www.manheimtownship.org
Open Space Management Plan (or Parks/Rec or Greenways Plan)	X			MT Planning and Zoning	www.manheimtownship.org
Stormwater Management Plan / Ordinance	X			MT Planning and Zoning	www.manheimtownship.org
Natural Resource Protection Plan	X			MT Planning and Zoning	www.manheimtownship.org
Capital Improvement Plan	X			MT BOC	www.manheimtownship.org
Economic Development Plan	X			MT Planning and Zoning	www.manheimtownship.org
Historic Preservation Plan	X			MT Planning and Zoning	www.manheimtownship.org
Farmland Preservation	X			MT Planning and Zoning	www.manheimtownship.org
Building Code	X			MT Codes	www.manheimtownship.org
Fire Code	X			MT Codes and Fire Rescue	www.manheimtownship.org
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X		Community Development	www.manheimtownship.org
Planners or engineers (with natural and/or human caused hazards knowledge)	X		Community Development, Public Works, Planning, Zoning	www.manheimtownship.org
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		Public Works, Planning, Zoning	www.manheimtownship.org
Emergency Manager	X		Fire Rescue, Police	www.manheimtownship.org
Floodplain Manager	X		Planning and Zoning	www.manheimtownship.org
Land Surveyors	X		Contracted	www.manheimtownship.org
Scientists or staff familiar with the hazards of the community	X		Community Development, Fire Rescue, Police, Zoning, Planning	www.manheimtownship.org
Personnel skilled in GIS and/or FEMA's HAZUS program	X		Community Development, Zoning	www.manheimtownship.org
Grant writers or fiscal staff to handle large or complex grants	X		Contracted	www.manheimtownship.org
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming	X		MT BOC	www.manheimtownship.org
Community Development Block Grants (CDBG)	X		MT BOC	www.manheimtownship.org
Special Purpose Taxes	X		MT BOC	www.manheimtownship.org
Gas / Electric Utility Fees		X		
Water / Sewer Fees		X		See Lancaster City for rates
Stormwater Utility Fees	X		MT BOC	www.manheimtownship.org
Development Impact Fees	X		MT BOC, Planning, Zoning	www.manheimtownship.org
General Obligation, Revenue, and/or Special Tax Bonds	X		MT BOC	www.manheimtownship.org
Partnering Arrangements or Intergovernmental Agreements	X		MT BOC	www.manheimtownship.org
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification		X		
Natural disaster or safety related school programs	X		Safe Schools/ MT School District	
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	X			
Public-private partnership initiatives addressing disaster-related issues	X			
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	X			
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability			X
Administrative and Technical Capability			X
Financial Capability			X
Education and Outreach			X

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Scott Little **Title:** EMC/Fire Chief

Jurisdiction: Manheim Township **Email:** slittle@manheimtownship.org

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Yes	https://www.fema.gov/flood-maps
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	No	https://www.fema.gov/flood-maps
c. Does the municipality support requests for map updates?	If yes, specify how.	Yes	https://www.fema.gov/flood-maps
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	Yes	https://www.fema.gov/flood-maps
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	Yes	https://www.fema.gov/flood-maps
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	No	https://www.fema.gov/flood-maps

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	Yes	www.manheimtownship.org Planning, Zoning

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	Yes	www.manheimtownship.org Planning, Zoning
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	Yes	www.manheimtownship.org Planning, Zoning
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Yes	www.manheimtownship.org Planning, Zoning
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	Yes	www.manheimtownship.org Planning, Zoning
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	Yes	www.manheimtownship.org Planning, Zoning
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	Yes	www.manheimtownship.org Planning, Zoning

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	Yes	As needed, www.manheimtownship.org Planning, Zoning

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	Yes	As needed, www.manheimtownship.org Planning, Zoning
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	Yes	As needed, www.FEMA.gov

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	No
Is the floodplain management an auxiliary function?	Community FPA	Yes
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Contracted
What are the barriers to running an effective NFIP program in the community?	Community FPA	Budget, Personnel
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	www.FEMA.gov
Are there any outstanding compliance issues (i.e., current violations)?		www.FEMA.gov
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		www.FEMA.gov
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	www.FEMA.gov
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	www.FEMA.gov
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	www.FEMA.gov
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	www.FEMA.gov
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	www.FEMA.gov
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	www.FEMA.gov
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	www.FEMA.gov
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	www.FEMA.gov
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	www.FEMA.gov
What categories and activities provide CRS points and how can the class be improved?		www.FEMA.gov
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	www.FEMA.gov

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Scott Little | Title: EMC/Fire Chief

Jurisdiction: Manheim Twp | Email: slittle@manheimtownship.org

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	MT agrees with the goals and objectives for Lancaster County EMA to achieve over this 5-year plan.
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	MT agrees with the goals and objectives for Lancaster County EMA to achieve over this 5-year plan.
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	MT agrees with the goals and objectives for Lancaster County EMA to achieve over this 5-year plan.
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	MT agrees with the goals and objectives for Lancaster County EMA to achieve over this 5-year plan.
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.						
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.						
LC-3	Action 3	Elevate structures at risk of flooding.						
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.						
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.						
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.						
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.						
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.						
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.						
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local						

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
		regulations to protect new structures constructed in hazard-prone areas.						
LC-5	Action 11	Remove any dilapidated or structurally unsound dams that pose a flooding threat to the community.						
ManhT-1	Action 12	Protect District Justice Office 13 to the 0.2% annual chance flood level.		X				*Public Works*
ManhT-2	Action 13	Protect Wastewater Pump #143 to the 0.2% annual chance flood level.		X				*Public Works*
ManhT-3	Action 14	Protect Wastewater Pump #166 to the 0.2% annual chance flood level.		X				*Public Works*
ManhT-4	Action 15	Protect Wastewater Pump #167 to the 0.2% annual chance flood level.		X				*Public Works*
ManhT-5	Action 16	West Roseville Road Bridge Demolition - Demolish and remove the West Roseville Road Bridge spanning the Little Conestoga Creek. Removal of an unsafe structure and obstruction in the floodway.		X				*PENNDOT*
ManhT-6	Action 17	Work with PENNDOT to redesign the interchange at US-30 and US-222.		X				*PENNDOT*

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com)

Jurisdiction: Manheim Township

Name/Title of Individual Completing Worksheet: Scott R. Little / Fire Chief / EMC

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Y	
Dam Failure	Low	Y	
Drought	Medium	Y	
Earthquake	Low	L	
Environmental Hazards: Gas and Pipeline	Medium	H	Multiple Pipelines Running Through MT
Environmental Hazards: Hazardous Materials	Medium	M	
Flood, Flash Flood, Ice Jam	High	H	
Hailstorm	Medium	M	
Invasive Species	Medium	M	
Nuclear Incident	Medium	M	
Pandemic and Infectious Disease	Medium	M	
Radon Exposure	High	H	
Subsidence, Sinkhole	High	H	
Substance Use Disorder and Mental Health	Medium	M	
Terrorism	Medium	M	
Tornado, Windstorm	Medium	M	
Transportation Accident	High	H	
Utility Interruption	High	H	
Wildfire	Medium	M	
Winter Storm	Medium	M	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Manheim Township

Name/Title of Individual Completing Worksheet: Scott R. Little / Fire Chief / EMC

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Land Development	Develop New Comp Plan	Urban/Suburban Flooding

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Retirement Communities	Continue to work with each facility	On-site sustainment

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Culvert Replacement	Township is brining more work in-house that can be done quicker by Twp staff	Replacement of one culvert occurred in 2024.

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Mitigating flooding in new developments	Stormwater Management Plan in place has helped with this problem	Buckton Reserve had standing water issue. Resolved by a proactive engineer.

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Roadways	Township PW Department has a robust plan to address and update a set amount of road miles each year.	Improve roadway safety and reduce standing or high water.

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Immediate Outreach	Township has hired a communications director	Increased publics awareness

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Manor Township

Hazard Identification and Risk Evaluation Worksheet

Name: Duane Hagelgans **Title:** EMC

Jurisdiction: Manor Township **Email:** Dhagelgans_brrfd@comcast.net

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	I	As the weather changes, it seems like we are becoming drier
Earthquake	I	In last few years, we have experienced two earthquakes, while not in the borough, that have been felt in the borough.
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	I	In the past year, we have experienced several hail storms with large hail and damage.
Invasive Species	NC	
Pandemic	NC	
Radon Exposure	NC	
Subsidence and Sinkholes	NC	Consistent
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	N/A	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- X Extreme Temperature
- X Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- X Building and Structure Collapse
- X Civil Disturbance
- X Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

As we have witnessed with extreme heat and extreme cold, both of these have the potential to affect both the aging regular population, and the university population.

As the borough ages, and we see some ground and sink hole issues, we have the potential for building settling and possible collapse

Civil disturbances and cyber terrorism leave no area unaffected. We have experienced a cyber attack at the University and in today's society civil disturbances are always a possibility.

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Duane Hagelgans **Title:** EMC

Jurisdiction: Manor Township **Email:** dhagelgans@gmail.com

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	No	Will work to determine a good location for storing these documents that is readily accessible.
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	No	
c. Does the municipality support requests for map updates?	If yes, specify how.	Yes	Borough public works will work with any agency updating vital plans
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	No	
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	Yes	We are available upon request to work with compliance agencies and government agencies.
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	No	Will work to determine a good location for storing these documents that is readily accessible. Most likely the Borough Office.

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	No	Will put on 2024-2025 agenda

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	Yes	Code compliance/Planning
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	Yes	Code compliance/Planning
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Yes	Code compliance/Planning
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	No	
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.		
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	No	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	Yes	At community events in coordination with local university, and town events, including National Night Out

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	No	
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	No	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	No
Is the floodplain management an auxiliary function?	Community FPA	Yes
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Code compliance/Planning
What are the barriers to running an effective NFIP program in the community?	Community FPA	Time and resources
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	Yes
Are there any outstanding compliance issues (i.e., current violations)?	None	None that I know of currently
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book Unknown

Is a CAV or CAC scheduled or needed?	Unknown	
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	Digital
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	No
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	All projects must seek and acquire permits through code and Planning offices and boards
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	Unknown
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	None that we are currently aware of.
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	TBD
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	Small tributaries to the Conestoga River, Conestoga River and Susquehanna River and tributaries
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	No
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Duane Hagelgans | Title: EMC

Jurisdiction: Manor Twp | Email: dhagelgans_BRRFD@comcast.net

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	Manor Township, through its planning and public works committees addresses proper land-use planning. Lancaster County, while challenging, should continue to look for proper growth areas, while avoiding building in potentially hazardous areas, such as the many streams and river valleys.
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	Manor Township does not own any critical infrastructure. However the sewer through LASA and the water through Lancaster City has been updated and maintained throughout the past two decades. This water system has been updated with additional capacity from a new large line from the Susquehanna River. There are areas in Lancaster County, such as Manheim, where improvements have been made. However there are areas in Lancaster City and Mount Joy, in which more flood control measures need to be taken. It appears Lancaster City has done a lot to improve water runoff in the past
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	

		decade. Lancaster County has carefully monitored potential spread of disease and initiated more plans during and post COVID's high point of 2020-2021
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	While Lancaster County has improved radio communications, there are still areas that lack complete radio coverage, such as along the Susquehanna River. Lancaster County must also do a better job of training and keeping good employees at LCWC. While most employees are very good at day-to-day, when there are busy periods, things tend to go downhill with communications. LEMA tries to provide training, however, with a strong volunteer structure in Lancaster County, interagency communication and coordination does not always occur.
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	
Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	Millersville borough and Manor Township are part of a regional EMA and the Fire Service does a lot of public outreach, however, it probably is not enough. Lancaster County has drastically improved its public outreach in the past 18 months to two years. Good public outreach is essential for disaster preparedness and management. It is challenging in much of Lancaster
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	

Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	County to discuss important mitigation issues and get residents to abide by the latest information, acquire the latest tools and implement good solutions. This has unfortunately become a government problem in which government does the heavy lifting. It is hard to get the average citizen, especially the one who needs good mitigation, to do mitigation. Often times it is either a lack of funds available by the homeowner or a lack of local government funds to take on the projects. HMGP funds should be sought for some of the most likely areas to be impacted in Lancaster County.

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective	Create a working group of County and local officials to identify the highest risk locations.	**In a Commonwealth it is challenging to get compliance. Creating a working group, similar to some in the emergency services to work together to identify risk, funding and solutions is a necessary step. We need to utilize experts and creating a team of stakeholders to identify and prioritize. However, this only works if they know they are going to be back by government.**
Objective	Determine ongoing funding sources and prioritize long term mitigation projects.	
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	None as of yet					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.			Needs to be continuous			
LC-3	Action 3	Elevate structures at risk of flooding.	None as of yet					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.						*n/a*
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	None as of yet					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.		In progress				
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	None as of yet					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.			Needs to be continuously done			
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.	None as of yet					

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.		Continuous				
LC-11	Action 11	Work with PPL to protect the Conestoga KV Substation to the 0.2% annual chance flood level.		Work in progress				
LC-12	Action 12	Work with the Safe Harbor Water Power Corporation to protect their facilities to the 0.2% annual chance flood level.		Work in progress				
ManT-1	Action 13	Protect Electric Substation #6 to the 0.2% annual chance flood level.		Work in progress				
ManT-2	Action 14	Protect the Millersville Borough WWTP to the 0.2% annual chance flood level.						*Borough issue*
ManT-3	Action 15	Protect the Millersville WWTP to the 0.2% annual chance flood level.						*Borough issue*
ManT-4	Action 16	Protect Wastewater Pump #140 to the 0.2% annual chance flood level.						*Borough issue*
ManT-5	Action 17	Protect Wastewater Pump #141 to the 0.2% annual chance flood level.						*Borough issue*
ManT-6	Action 18	Protect Wastewater Pump #150 to the 0.2% annual chance flood level.						*Borough issue*
ManT-7	Action 19	Protect Wastewater Pump #162 to the 0.2% annual chance flood level.						*Borough issue*
ManT-8	Action 20	Protect Wastewater Pump #165 to the 0.2% annual chance flood level.						*Borough issue*

Capability Assessment Survey

Name: Duane Hagelgans **Title:** EMC

Jurisdiction: Manor Township & Millersville Borough **Email:** Dhagelgans_Brrfd@comcast.net

Phone Number: 717-872-9345

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan			**X**	**BREMA**	**Working on updates**
Emergency Operations Plan			**X**	**BREMA**	**Working on three year update**
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan					
NFIP					
NFIP – Community Rating System					
Floodplain Regulations					
Floodplain Management Plan					
Zoning Regulations	**X**				

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
Subdivision Regulations	X				
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	X				**Both municipalities have plans**
Open Space Management Plan (or Parks/Rec or Greenways Plan)	X				**Both municipalities have plans**
Stormwater Management Plan / Ordinance					
Natural Resource Protection Plan					
Capital Improvement Plan	x				**Both municipalities have plans**
Economic Development Plan					
Historic Preservation Plan	X				**Both municipalities have plans**
Farmland Preservation	X				**Manor has extensive plan**
Building Code	X				**Both municipalities have plans**
Fire Code	X				**Both municipalities have plans**
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X			**Both municipalities have plans**
Planners or engineers (with natural and/or human caused hazards knowledge)		X		
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X			**Both municipalities have plans**
Emergency Manager	X		BREMA	
Floodplain Manager		X		
Land Surveyors		X		
Scientists or staff familiar with the hazards of the community		X		
Personnel skilled in GIS and/or FEMA's HAZUS program		X		
Grant writers or fiscal staff to handle large or complex grants		X		
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming	X			**Both municipalities have plans**
Community Development Block Grants (CDBG)		X		
Special Purpose Taxes	X			Fire Tax in Manor
Gas / Electric Utility Fees		X		
Water / Sewer Fees	X			Borough has sewer
Stormwater Utility Fees		X		
Development Impact Fees		X		
General Obligation, Revenue, and/or Special Tax Bonds				
Partnering Arrangements or Intergovernmental Agreements	X			Two municipalities formed IGA for EMA and Fire Protection
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification	X			**Both municipalities have through Fire Company**
Natural disaster or safety related school programs		X		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	X			**Both municipalities have through Fire Company**
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	X			**Both municipalities have through Fire Company**
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability		X	
Administrative and Technical Capability		X	
Financial Capability		X	
Education and Outreach	X		

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com) by Friday, November 15

Jurisdiction: Manor Township

Name/Title of Individual Completing Worksheet: Duane Hagelgans, EMC

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	YES	
Dam Failure	Low	No: Medium	We have the safe harbor dam in our jurisdiction, and several dams upstream from our township
Drought	Medium	No; High	Because of the extensive amount of farmland in the township, our risk is higher
Earthquake	Low	YES	
Environmental Hazards: Gas and Pipeline	Medium	YES	
Environmental Hazards: Hazardous Materials	Medium	YES	
Flood, Flash Flood, Ice Jam	High	YES	
Hailstorm	Medium	YES	
Invasive Species	Medium	YES	
Nuclear Incident	Medium	YES	
Pandemic and Infectious Disease	Medium	NO: High	With the number of farms., we have a much higher threat level
Radon Exposure	High	YES	
Subsidence, Sinkhole	High	YES	
Substance Use Disorder and Mental Health	Medium	YES	
Terrorism	Medium	YES	
Tornado, Windstorm	Medium	YES	
Transportation Accident	High	YES	
Utility Interruption	High	YES	
Wildfire	Medium	NO: High	With the number of farms., and wooded areas along the river and on islands in the river, we have a much higher threat level
Winter Storm	Medium	YES	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Manor Township

Name/Title of Individual Completing Worksheet: Duane Hagelgans, EMC

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Staff training	More EMA meetings and training	Staff preparedness and understanding of EM concepts

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Flooding along Susquehanna river	Currently better flood water management systems are being installed	Flooding
Flooding along Conestoga river	Need for better flood control systems	Flooding

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Marietta Borough

Hazard Identification and Risk Evaluation Worksheet

Name: Julie Hall **Title:** Secretary/Treasurer

Jurisdiction: Marietta Borough **Email:** julie@boroughofmarietta.com

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	NC	
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	Increase	Risk of oil cars on trains
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Increase in oil cars traveling through Borough on the Norfolk Southern trains. This has been addressed.

Capability Assessment Survey

Name: Julie Hall **Title:** Secretary/Treasurer

Jurisdiction: Marietta Borough **Email:** julie@boroughofmarietta.com

Phone Number: 717-426-4143 x-7

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**X**	**1/1/08**			
Emergency Operations Plan	**X**	**1/1/08**			
Disaster Recovery Plan	**X**	**1/1/08**			
Evacuation Plan	**X**	**1/1/08**			
Continuity of Operations Plan	**X**	**1/1/08**			
NFIP	**X**	**1/1/08**			
NFIP – Community Rating System					
Floodplain Regulations					
Floodplain Management Plan	**X**	**3/8/2016**			
Zoning Regulations	**X**	**7/12/16**			

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Subdivision Regulations	X	3/8/16			
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	X	8/2011			
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance	X	4/8/14			
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan	X	7/8/13			
Historic Preservation Plan					
Farmland Preservation					
Building Code					
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X		Planning Commission	
Planners or engineers (with natural and/or human caused hazards knowledge)	X		ARRO	
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		ARRO	
Emergency Manager	X		Marietta EMA	
Floodplain Manager				
Land Surveyors		X		Contact professionals as needed
Scientists or staff familiar with the hazards of the community		X		Contact professionals as needed
Personnel skilled in GIS and/or FEMA's HAZUS program		x		Contact professionals as needed
Grant writers or fiscal staff to handle large or complex grants		x		Contact professionals as needed
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming		x		
Community Development Block Grants (CDBG)		x		
Special Purpose Taxes		x		
Gas / Electric Utility Fees		x		
Water / Sewer Fees		x		
Stormwater Utility Fees		x		
Development Impact Fees		x		
General Obligation, Revenue, and/or Special Tax Bonds		x		
Partnering Arrangements or Intergovernmental Agreements		x		
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		x		
StormReady certification		x		
Natural disaster or safety related school programs		x		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)		x		
Public-private partnership initiatives addressing disaster-related issues		x		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		x		
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability		x	
Administrative and Technical Capability		x	
Financial Capability	x		
Education and Outreach	x		

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Julie Hall **Title:** Secretary/Treasurer

Jurisdiction: Marietta Borough **Email:** julie@boroughofmarietta.com

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Yes	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	No	
c. Does the municipality support requests for map updates?	If yes, specify how.	n/a	Never had one
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	Yes	Installed flapper valves
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	No	
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	n/a	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	Yes	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	Yes	Zoning/planning commission
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	Yes	Zoning/planning commission
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Yes	Zoning/planning commission
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	Yes	Zoning/planning commission
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	Yes	Zoning
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	No	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	No	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	No	
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	No	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	No – never been invited to a meeting
Is the floodplain management an auxiliary function?	Community FPA	no
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	n/a – strictly a volunteer coordinator
What are the barriers to running an effective NFIP program in the community?	Community FPA	Resources/training
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	Yes
Are there any outstanding compliance issues (i.e., current violations)?		No
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book 2011

Is a CAV or CAC scheduled or needed?		No
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	?
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	We meet state requirements
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	?
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Mitigation Strategy 5-Year Mitigation Plan Review

Name: _____ Title: _____

Jurisdiction: Marietta B Email: _____

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed? TMI - DOWN - TRAINS-UP
- Are current resources adequate to implement the plan? — BORO - YES.
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	SPEED LIMITS SINAGE
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	FLOOD PLAN BACK FLOW VALVES
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	PROGRESS ?
Objective 2.5	Protect the health of County residents from disease.	EDUCATE
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	ON GOING
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	GET INVOLVED PASS ON OPORTUNITIES
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.

USE SOCIAL MEDIA & MEETINGS

REQUIRED?

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective	PRESENT VARIOUS EDUCATIONAL PROGRAMS TO SCHOOLS & GROUPS TO EDUCATE THEM.	
Objective	GET PEOPLE TO VOLUNTEER!?	
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.	X					
LC-3	Action 3	Elevate structures at risk of flooding.	X — X			421 use		
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	X					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	X					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	X					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.		X				
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.		X				
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.			X			
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local			X			

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
		regulations to protect new structures constructed in hazard-prone areas.			X			
MarB-1	Action 11	Protect the Marietta Borough Building to the 0.2% annual chance flood level.	X					
MarB-2	Action 12	Protect the Marietta Donegal Sewage Treatment Plant to the 0.2% annual chance flood level.	X					
MarB-3	Action 13	Protect the Marietta Fire Department station to the 0.2% annual chance flood level.	X					
MarB-4	Action 14	Protect the Marietta-East Donegal Joint Authority WWTP to the 0.2% annual chance flood level.	X					
MarB-5	Action 15	Protect the Susquehanna Valley EMS facility to the 0.2% annual chance flood level.	N/A					
MarB-6	Action 16	Protect Wastewater Pump #53 to the 0.2% annual chance flood level.	X					

5 YEAR PLAN UPDATE

Stephen M. Bailey

Meeting 2/24/2024

Present were Judith Kennedy. Marietta Borough Councilwoman, Miles Lauver, Marietta Borough Councilman, Fred States. President Marietta Borough Council. Steve Bailey, Marietta Borough EMA Coordinator.

Goal 1

1.3 Stormwater Management Standards Established 294-18. Includes invasive species management (currently managed via volunteerism associated with Shade Tree Commission; need for Invasive Species Management Plan and funding (PRISM bill in Harrisburg) Partnerships for Invasive Species Management (local, state and federal) for protection of floodplain regions.

Floodplain management and preservation efforts to be maintained and furthered through current volunteerism and Borough road crew efforts and future advocacy at the county and state levels.

Goal 2

2.1 Continue and enhance safety regulations (county. state. federal) regarding Norfolk Southern Railroad; If possible identify contents of transport.

2.4 Installed flapper valves for the inflow and out flow of stormwater. Need to continue to maintain the valves. Need to research and apply for a pumping station. Continue to engage in tree planting along streams, rivers and streets for stormwater management.

2.5 Improve communication regarding disease threats through print media, education, and improved website, including research funds for a new website through the PA

State Assoc of Boroughs; Borough bulletin boards. Continue to fight the high rate of obesity in the Borough through encouraging "active transportation".

Goal 3

Developed shared ambulance service for ambulance viability. : MESA

Goal 4

4.1 Webinars have been announced on Borough Website regarding residential stormwater solutions via Penn State Ext. free courses, local borough resident experts have provided classes at the Community House, education has occurred through articles with the Marietta Traveler, need to continue; website functionality and access for these communications to continue.

4.4 Educate existing property owners to the benefit of flood insurance.

Martic Township

Hazard Identification and Risk Evaluation Worksheet

Name: Karen Sellers **Title:** Manager

Jurisdiction: Martic Township **Email:** martictwp@comcasat.net

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	NC	
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

NO

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

NO

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Capability Assessment Survey

Name: KAREN SELLERS **Title:** MANAGER

Jurisdiction: MARTIC TOWNSHIP **Email:** martictwp@comcast.net

Phone Number: 717-284-2167

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**X**			**County EMA**	**County last updated in 2019, Township participated**
Emergency Operations Plan					
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan					
NFIP					
NFIP – Community Rating System					
Floodplain Regulations					
Floodplain Management Plan					
Zoning Regulations	**X**	**9.5.23**		**MUNICIPAL ZO**	

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
Subdivision Regulations	**X**	**3.7.16**			
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	**X**	**2.6.23**			
Open Space Management Plan (or Parks/Rec or Greenways Plan)	**X**	**2.4.19**			
Stormwater Management Plan / Ordinance					
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation	**X**			**COUNTY**	
Building Code	**X**	**11.4.2002**			
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)		X		
Planners or engineers (with natural and/or human caused hazards knowledge)	X		RETTEW	
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		COMMONWEALTH CODE	
Emergency Manager	X			
Floodplain Manager		X		
Land Surveyors	X		RETTEW	
Scientists or staff familiar with the hazards of the community		X		
Personnel skilled in GIS and/or FEMA's HAZUS program		X		
Grant writers or fiscal staff to handle large or complex grants	X			
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming	X		SUPERVISORS	
Community Development Block Grants (CDBG)		X		
Special Purpose Taxes		X		
Gas / Electric Utility Fees		X		
Water / Sewer Fees		X		
Stormwater Utility Fees		X		
Development Impact Fees		X		
General Obligation, Revenue, and/or Special Tax Bonds		X		
Partnering Arrangements or Intergovernmental Agreements		X		
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification		X		
Natural disaster or safety related school programs		X		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)		X		
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		X		
Other		X		

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability		X	
Administrative and Technical Capability	X		
Financial Capability	X		
Education and Outreach	X		

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: KAREN SELLERS **Title:** MANAGER

Jurisdiction: MARTIC TOWNSHIP **Email:** martictwp@comcast.net

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	YES	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	NO	
c. Does the municipality support requests for map updates?	If yes, specify how.	NO	
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	NO	
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	NO	
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	YES	MUNICIPAL OFFICE

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	YES	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	NO	
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	NO	
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	NO	
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	NO	
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	YES	ENFORCEMENT
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	NO	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	NO	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	NO	
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	NO	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	?
Is the floodplain management an auxiliary function?	Community FPA	NO
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	?
What are the barriers to running an effective NFIP program in the community?	Community FPA	?
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	
Are there any outstanding compliance issues (i.e., current violations)?		NO
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	DIGITAL
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	YES
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	ZHB APPROVAL
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	?
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	?
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	Unknown, there are some but number is not known
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	NO
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Mike Hall | Title: EMC

Jurisdiction: Martic Twp | Email: grinderguy@comcast.net

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	Continuing
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	Continuing. Need further assessment of disease weakened trees along roadways.
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	Continuing. Need to support funding for local fire dept. and mitigation and prevention work.
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	Continuing. Create funding options to allow EMC to be more proactive by being at least part-time staff to meet preparedness , mitigation, and educational goals.
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal	**Access Wildland Urban -Interface hazards in effected municipalities.**	
Objective	Identify and give a hazard rating to particular geographic areas.	
Objective	Educate public on existing hazards.	
Objective	Develop plans, training and equipment to support fire dept.	

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X		X			
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.			X			
LC-3	Action 3	Elevate structures at risk of flooding.	X		X			
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	x					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	X		X			
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	X					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	X					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	X		X			
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.	X					
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local	X		X			

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
		regulations to protect new structures constructed in hazard-prone areas.						
LC-5	Action 11	Remove any dilapidated or structurally unsound dams that pose a flooding threat to the community.	X					
LC-13	Action 12	Work with PPL to protect the Holtwood facility to the 0.2% annual chance flood level.	X					

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com) by Friday, November 15

Jurisdiction: Martic Twp., Pequea Twp. Conestoga Twp

Name/Title of Individual Completing Worksheet: Mike Hall

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	y	
Dam Failure	Low	y	Both dams reside within our township's bounderies
Drought	Medium	y	Majority on private wells. Agriculture is large economic driver here.
Earthquake	Low	y	
Environmental Hazards: Gas and Pipeline	Medium	y	Our Townships have a larger than other amount present.
Environmental Hazards: Hazardous Materials	Medium	y	Agricultural and transportation
Flood, Flash Flood, Ice Jam	High	y	Our townships directly in path of Pequea Creek
Hailstorm	Medium	y	
Invasive Species	Medium	y	
Nuclear Incident	Medium	y	Martic Twp. Within EPZ
Pandemic and Infectious Disease	Medium	y	
Radon Exposure	High	y	
Subsidence, Sinkhole	High	y	
Substance Use Disorder and Mental Health	Medium	y	
Terrorism	Medium	y	
Tornado, Windstorm	Medium	y	
Transportation Accident	High	y	
Utility Interruption	High	y	Rual setting for several sub-stations
Wildfire	Medium	y	Large areas of Urban-Interface are present in all 3 of my townships
Winter Storm	Medium	y	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Martic Township

Name/Title of Individual Completing Worksheet: Mike Hall, OEM Coordinator

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Floodplain Administrator is unknown for the Township of Martic.	Go into the flood Damage Prevention Ordinance and identify the FPA. If the FPA individual identified should be altered, update the ordinance and adopt the amendment.	Flood/Flash Flood/Ice Jams

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Martic Township is in the process of planning for the construction of a new Township Building. The Township plans to utilize grant funding to construct the building. The building will be utilized for every-day Township tasks and be used for emergency needs, including having an EOC and a potential site for pre-staging of equipment. Not included in the construction plans is an emergency generator. When this facility is constructed, it will not have the capabilities to maintain its operations during an emergency.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the anticipated new Township Building. Once identified, Public Works will have the emergency generator installed at the Township Building. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Terrorism, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
There are culverts throughout the Township which may be undersized or have failing components which are located underground.	When funding and staffing is available, the Township will address the culvert issues. If possible, the Township will assess the feasibility of hiring external contractors. The Township will continue its assessment of the integrity and replacement schedule of the culverts throughout its jurisdiction.	Flood/Flash Flood/Ice Jams, Winter Storm

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Pequea Creek has flooding potential throughout the Township. Properties within the Township have likely been impacted by the Creek to some extent, but no reports have been sent to the Township.	The Township will conduct outreach to property owners along the Pequea Creek to identify whether they have incurred property damage from flooding associated with the Pequea Creek. The Township will develop a list of property owners which may be interested in flood mitigation measures, included elevation or acquisition.	Flood/Flash Flood/Ice Jams

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Problem	Solution	Hazard(s) Addressed

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed
The Township may be unaware of all the socially vulnerable populations in its jurisdiction but is aware of the organizations which may be communicating with them. Educating these populations will increase the Township's resiliency to hazards.	The Township will work with local NGOs, churches, and other community locations to provide information relating to hazard mitigation and preparedness geared toward the readiness of individuals, the community as a whole, and properties.	Cyber Incidents, Dam Failure, Drought, Earthquake, Gas and Liquid Pipelines, Hazardous Materials Releases, Flood/Flash Flood/Ice Jams, Hailstorms, Invasive Species, Nuclear Incidents, Pandemic and Infectious Disease, Radon Exposure, Subsidence/Sinkholes, Substance Use Disorder, Terrorism, Tornado/Windstorm, Transportation Accidents, Utility Interruption, Wildfire, Winter Storm

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Portions of the Township are located within the Wildfire Interface/Intermix areas. These areas are particularly at risk to the wildfire hazard, as this is the location which the built environment meetings wooded or forested areas. At these locations, a wildfire is more likely to impact the built environment, causing potential economic hardship to property and business owners.	The Township will take a variety of actions to reduce the risk to the wildfire hazard in the interface and intermix areas: 1. Educate property and business owners how to mitigate risk, including managing vegetation, keeping yards clear, ensuring there is enough boundary between the wooded or forested areas and their property. 2. Ensure Township employees (DPW, Fire Services) maintain the wooded or forested areas by clearing and maintaining ground vegetation and utilizing prescribed burns when and where appropriate. 3. Consider joining the Firewise Program, which teaches people how to adapt to living with wildfire and encourages neighbors to work together and take action now to prevent losses. 4. Write and adopt a Community Wildfire Protection Plan which would provide a framework for mitigating wildland fire impacts throughout the Township.	Wildfire
The Township has a large agricultural community whose livelihood relies on its practices. These agricultural practices, as well as everyday activities, consume portions of the available water supply. The rural water supply may become at risk during times of drought or when there are wildfires, as first responders also rely on the water supply to extinguish both wildfires and household fires.	The Township will conduct research into other avenues for water supplies and will consider the following strategies: 1. Prioritizing investment in water infrastructure by developing and maintaining water harvesting structures, and building new water systems, storage tanks, and treatment facilities while fostering community engagement. 2. Promoting the protection of watersheds and ensuring sustainable groundwater extraction. 3. Empower the community with the knowledge and skills to manage their water resources by providing educational programs on how to improve their current water management practices ad become more sustainable. 4. Enforce standards for water quality, promote efficient water use, and incentivize conservation efforts. 5. Leverage technology to improve water management systems,	Drought, Utility Interruption, Wildfire

Problem	Solution	Hazard(s) Addressed
	including solar-powered pumps, remote sensing for monitoring water levels, and mobile applications for reporting issues can enhance water access and management.	
In recent years, there has been an increase in call volume for assistance on lands owned and maintained by the Lancaster Conservancy. Individuals on these protected lands will often hike, sometimes after recent storms which cause ground, soil, and vegetative conditions to be unfavorable. This increase in emergency response calls as placed a staffing and financial strain on the resources within the Township. Currently, the Township faces these burdens alone.	The Township will engage with the Lancaster Conservancy to hold discussions on joint responsibility and assistance with the increase in call volumes, which has resulted in an up-tick of emergency responses on land owned by the Lancaster Conservancy. These discussions will lead to the writing and adoption of a Memorandum of Agreement or Memorandum of Understanding between the two entities which will outline the roles and responsibilities of each.	Flood/Flash Flood/Ice Jams, Hailstorms, Tornado/Windstorm, Winter Storm

Millersville Borough

Hazard Identification and Risk Evaluation Worksheet

Name: Duane Hagelgans **Title:** EMC

Jurisdiction: Millersville Borough **Email:** Dhagelgans_brrfd@comcast.net

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	I	As the weather changes, it seems like we are becoming drier
Earthquake	I	In last few years, we have experienced two earthquakes, while not in the borough, that have been felt in the borough.
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	I	In the past year, we have experienced several hail storms with large hail and damage.
Invasive Species	NC	
Pandemic	NC	
Radon Exposure	NC	
Subsidence and Sinkholes	NC	Consistent
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	N/A	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- X Extreme Temperature
- X Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- X Building and Structure Collapse
- X Civil Disturbance
- X Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

As we have witnessed with extreme heat and extreme cold, both of these have the potential to affect both the aging regular population, and the university population.

As the borough ages, and we see some ground and sink hole issues, we have the potential for building settling and possible collapse

Civil disturbances and cyber terrorism leave no area unaffected. We have experienced a cyber attack at the University and in today's society civil disturbances are always a possibility.

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Duane Hagelgans **Title:** EMC

Jurisdiction: Millersville Borough **Email:** dhagelgans@gmail.com

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	No	Will work to determine a good location for storing these documents that is readily accessible.
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	No	
c. Does the municipality support requests for map updates?	If yes, specify how.	Yes	Borough public works will work with any agency updating vital plans
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	No	
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	Yes	We are available upon request to work with compliance agencies and government agencies.
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	No	Will work to determine a good location for storing these documents that is readily accessible. Most likely the Borough Office.

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	No	Will put on 2024-2025 agenda

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	Yes	Code compliance/Planning
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	Yes	Code compliance/Planning
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Yes	Code compliance/Planning
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	No	
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.		
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	No	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	Yes	At community events in coordination with local university

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	No	
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	No	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	No
Is the floodplain management an auxiliary function?	Community FPA	Yes
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Code compliance/Planning
What are the barriers to running an effective NFIP program in the community?	Community FPA	Time and resources
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	Yes
Are there any outstanding compliance issues (i.e., current violations)?	None	None that I know of currently
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book Unknown

Is a CAV or CAC scheduled or needed?	Unknown	
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	Digital
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	No
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	All projects must seek and acquire permits through code and Planning
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	Unknown
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	None that we are currently aware of.
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	TBD
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	Small tributaries to the Conestoga River
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	No
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Duane Hagelgans | Title: EMC

Jurisdiction: Millersville B | Email: dhagelgans_brrfd@comcast.net

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	Millersville borough, through its planning and public works committees addresses proper land-use planning. Lancaster County, while challenging, should continue to look for proper growth areas, while avoiding building in potentially hazardous areas, such as the many streams and river valleys.
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	Millersville Borough's critical infrastructure has been updated and maintained throughout the past two decades. The borough now receives its public water from Lancaster City. This system has been updated with additional capacity from a new large line from the Susquehanna River. There are areas in Lancaster County, such as Manheim, where improvements have been made. However there are areas in Lancaster City and Mount Joy, in which more flood control measures need to be taken. It appears Lancaster City has done a lot to improve water runoff in the past decade. Lancaster County has
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	

		carefully monitored potential spread of disease and initiated more plans during and post COVID's high point of 2020-2021
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	While Lancaster County has improved radio communications, there are still areas that lack complete radio coverage, such as along the Susquehanna River. Lancaster County must also do a better job of training and keeping good employees at LCWC. While most employees are very good at day-to-day, when there are busy periods, things tend to go downhill with communications. LEMA tries to provide training, however, with a strong volunteer structure in Lancaster County, interagency communication and coordination does not always occur.
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	
Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	Millersville borough EMA and Fire Service does a lot of public outreach, however, it probably is not enough. Lancaster County has drastically improved its public outreach in the past 18 months to two years. Good public outreach is essential for disaster preparedness and management. It is challenging in much of Lancaster County to discuss important mitigation issues and get residents to abide by the latest
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

		information, acquire the latest tools and implement good solutions. This has unfortunately become a government problem in which government does the heavy lifting. It is hard to get the average citizen, especially the one who needs good mitigation, to do mitigation. Often times it is either a lack of funds available by the homeowner or a lack of local government funds to take on the projects. HMGP funds should be sought for some of the most likely areas to be impacted in Lancaster County.

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective	Create a working group of County and local officials to identify the highest risk locations.	**In a Commonwealth it is challenging to get compliance. Creating a working group, similar to some in the emergency services to work together to identify risk, funding and solutions is a necessary step. We need to utilize experts and creating a team of stakeholders to identify and prioritize. However, this only works if they know they are going to be back by government.**
Objective	Determine ongoing funding sources and prioritize long term mitigation projects.	
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.						*N/A*
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.			Needs to be continuous			
LC-3	Action 3	Elevate structures at risk of flooding.						*N/A*
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.						*N/A*
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	None as of yet					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.		In progress				
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.			Needs to be continuous			
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.			Needs to be continuous			
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.			Needs to be continuous			

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.			Needs to be continuous			
MillB-1	Action 11	Improve drainage along Oak Ridge Drive.				X		
MillB-2	Action 12	Improve drainage at Barbara Street and East Cottage Avenue.				X		
MillB-3	Action 13	Protect Wastewater Pump #179 to the 0.2% annual chance flood level.		In progress				

Capability Assessment Survey

Name: Duane Hagelgans **Title:** EMC

Jurisdiction: Manor Township & Millersville Borough **Email:** Dhagelgans_Brrfd@comcast.net

Phone Number: 717-872-9345

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan			**X**	**BREMA**	**Working on updates**
Emergency Operations Plan			**X**	**BREMA**	**Working on three year update**
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan					
NFIP					
NFIP – Community Rating System					
Floodplain Regulations					
Floodplain Management Plan					
Zoning Regulations	**X**				

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
Subdivision Regulations	X				
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	X				**Both municipalities have plans**
Open Space Management Plan (or Parks/Rec or Greenways Plan)	X				**Both municipalities have plans**
Stormwater Management Plan / Ordinance					
Natural Resource Protection Plan					
Capital Improvement Plan	x				**Both municipalities have plans**
Economic Development Plan					
Historic Preservation Plan	X				**Both municipalities have plans**
Farmland Preservation	X				**Manor has extensive plan**
Building Code	X				**Both municipalities have plans**
Fire Code	X				**Both municipalities have plans**
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X			**Both municipalities have plans**
Planners or engineers (with natural and/or human caused hazards knowledge)		X		
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X			**Both municipalities have plans**
Emergency Manager	X		BREMA	
Floodplain Manager		X		
Land Surveyors		X		
Scientists or staff familiar with the hazards of the community		X		
Personnel skilled in GIS and/or FEMA's HAZUS program		X		
Grant writers or fiscal staff to handle large or complex grants		X		
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming	X			**Both municipalities have plans**
Community Development Block Grants (CDBG)		X		
Special Purpose Taxes	X			Fire Tax in Manor
Gas / Electric Utility Fees		X		
Water / Sewer Fees	X			Borough has sewer
Stormwater Utility Fees		X		
Development Impact Fees		X		
General Obligation, Revenue, and/or Special Tax Bonds				
Partnering Arrangements or Intergovernmental Agreements	X			Two municipalities formed IGA for EMA and Fire Protection
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification	X			**Both municipalities have through Fire Company**
Natural disaster or safety related school programs		X		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	X			**Both municipalities have through Fire Company**
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	X			**Both municipalities have through Fire Company**
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability		X	
Administrative and Technical Capability		X	
Financial Capability		X	
Education and Outreach	X		

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com) by Friday, November 15

Jurisdiction: Millersville Boro

Name/Title of Individual Completing Worksheet: Duane Hagelgans, EMC

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	YES	
Dam Failure	Low	YES	
Drought	Medium	Yes	
Earthquake	Low	YES	
Environmental Hazards: Gas and Pipeline	Medium	YES	
Environmental Hazards: Hazardous Materials	Medium	YES	
Flood, Flash Flood, Ice Jam	High	YES	
Hailstorm	Medium	YES	
Invasive Species	Medium	YES	
Nuclear Incident	Medium	YES	
Pandemic and Infectious Disease	Medium	NO: High	With the number of college students, we have a great chance for an outbreak and spread.
Radon Exposure	High	YES	
Subsidence, Sinkhole	High	YES	
Substance Use Disorder and Mental Health	Medium	No; High	With the high number of High School and College students, are MH potential issues, are higher
Terrorism	Medium	YES	
Tornado, Windstorm	Medium	YES	
Transportation Accident	High	YES	
Utility Interruption	High	YES	
Wildfire	Medium	YES	
Winter Storm	Medium	YES	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Millersville Borough

Name/Title of Individual Completing Worksheet: Duane Hagelgans, EMC

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Emergency power	Generator for fire station: $120,000	Loss of power

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Number of students at university and high school	Part of our critical infrastructure are these education facilities that have a large number of young adults and teenagers. In a time of disaster, we have got to work out better evaluation and communication plans, working with the University and School district to resolve these issues	Evacuation issues

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Mental Health	Create plans with agencies who can assist with solutions	High probability of MH issues in teens and college students

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Mount Joy Borough

Hazard Identification and Risk Evaluation Worksheet

Name: Philip A Colvin **Title:** Emergency Management Coordinator

Jurisdiction: Mount Joy Borough **Email:** ema@mountjoypa.org

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	NC	
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	D	TMI was closed is may be reopening.
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- X Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- X Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- X Urban Fire/Explosion

Additional Comments:

The borough has continuity plans but they could be improved to include total loss of a facility and records that are not in electronic form. There are offsite backups of computer data, but testing of restoration of the backups should be conducted.

Capability Assessment Survey

Name: Philip A Colvin **Title:** Emergency Management Coordinator

Jurisdiction: Mount Joy Borough **Email:** ema@mountjoypa.org

Phone Number: 717-804-4473

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**X**	**2019**		**County EMA**	
Emergency Operations Plan	**X**	**2019**	**X**	**MJB EMA**	**Plan need to be updated and promulgated by council.**
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan					
NFIP					
NFIP – Community Rating System					
Floodplain Regulations	**X**			**MJB Codes and Planning**	**Utilize the FIRMs and County Planning Commission**
Floodplain Management Plan					
Zoning Regulations	**X**			**MJB Codes and Zonning**	

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Subdivision Regulations					
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)					
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance	**X**			**MJB Public Works**	
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation					
Building Code	**X**			**MJB Codes**	
Fire Code	**X**			**MJB Codes**	
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)				
Planners or engineers (with natural and/or human caused hazards knowledge)				
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)				
Emergency Manager	X		MJB EMA	
Floodplain Manager				
Land Surveyors				
Scientists or staff familiar with the hazards of the community				
Personnel skilled in GIS and/or FEMA's HAZUS program				
Grant writers or fiscal staff to handle large or complex grants	X		Mount Joy Borough Staff	
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming				
Community Development Block Grants (CDBG)				
Special Purpose Taxes				
Gas / Electric Utility Fees				
Water / Sewer Fees	X		Mount Joy Borough Authority	
Stormwater Utility Fees				
Development Impact Fees	X		Codes	
General Obligation, Revenue, and/or Special Tax Bonds				
Partnering Arrangements or Intergovernmental Agreements				
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification				
StormReady certification				
Natural disaster or safety related school programs				
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)				
Public-private partnership initiatives addressing disaster-related issues				
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.				
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability	X		
Administrative and Technical Capability	X		
Financial Capability		X	
Education and Outreach	X		

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Philip A Colvin **Title:** Mount Joy Borough EMC

Jurisdiction: Mount Joy Borough **Email:** ema@mountjoypa.org

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Yes	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	Yes	
c. Does the municipality support requests for map updates?	If yes, specify how.	No	
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	No	
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	No	
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	No	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	No	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	No	
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	No	
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Yes	Codes Enforcement
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	No	
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	Yes	Codes enforcement would monitor new and existing structure placement.
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	No	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	Yes	Codes will advise property owners of flood insurance if flooding impacts their properly.

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	No	
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	No	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	No
Is the floodplain management an auxiliary function?	Community FPA	Yes
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Codes Enforcement would start any services. If additional services are needed community would be advised.
What are the barriers to running an effective NFIP program in the community?	Community FPA	Not much area of the borough is in any flood plain.
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	As far as we know
Are there any outstanding compliance issues (i.e., current violations)?		No
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	Digital / Online
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	Codes will not issue permits in flood plains.
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	Unknown
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	Less than 20.
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	No
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	No

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Philip A Colvin

Title: Emergency Management Coordinator

Jurisdiction: Mount Joy Borough

Email: ema@mountjoypa.org

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.						
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.						
LC-3	Action 3	Elevate structures at risk of flooding.						
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.						
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.						
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.						
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.						
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.						
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.						
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local						

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
		regulations to protect new structures constructed in hazard-prone areas.						
MJB-1	Action 11	Conduct a detailed flood study of the Little Chiques Creek.		X				
MJB-2	Action 12	Improve stormwater management capacity of Staufer Court and the outfall into the Little Chiques Creek.					X	*See new actions below*
MJB-3	Action 13	Improve stormwater management capacity under PA-230.					X	*See new actions below.*
MJB-4	Action 14	Modifications to the Borough Stormwater Detention Basin - increasing the volume of the basin by increasing the height of the berms and/or increasing the footprint of the basin and replacing a 45' long drainage swale with a pipe to prohibit stormwater from flowing over the swale berm.		X				
MJB-5	Action 15	Install lining of sewer mains and maintenance holes to prevent inflow and infiltration of stormwater system wide						*New Action*
MJB-6	Action 16	Design and construct a flood wall around the Waste Water Treatment Plant to prevent shutdown from flood waters of the Little Chiques Creek.						*New Action*
MJB-7	Action 17	Replace aging terracotta sewer mains throughout the system to prevent ruptures during flooding events.						*New Action*

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
MJB-8	Action 18	Reconstruct drinking water wells by installing casing to a lower depth to prevent stormwater infiltration.						*New Action*
MJB-9	Action 19	Construct or enhance Flood Doors/Barriers on well houses and sewage pump stations to keep out flood water so the facility remains functional during flooding events.						*New Action*
MJB-10	Action 20	Replace/Rehabilitate water filters to handle infiltrated storm water.						*New Action*
MJB-11	Action 21	Streambank Restoration Project for the Little Chiques Creek Park. This is a 2.5-million-dollar project. Once completed it will address both flooding in the park and along some of the houses in the general area as well as stop the erosion of the streambanks.						*New Action*
MJB-12	Action 22	Increase the Stormwater Capacity to the outfall to the Little Chiques and Donegal Creek's watershed system wide.						*New Action*
MJB-13	Action 23	Replace aging and failing corrugated metal storm pipe throughout the borough.						*New Action*
MJB-14	Action 24	Improve and Upgrade the Locust Lane Storm Water Management Basin. Repair existing sink holes in the basing and increase function and capacity of the basin.						*New Action*
MJB-15	Action 25	Improve and Upgrade the Pink Alley Storm Water Management Basin						*New Action*
MJB-16	Action 26	Construct a new Stormwater Management Facility to prevent flooding of the Manheim St area.						*New Action*

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
MJB-17	Action 27	Improve Stormwater management capacity in problem areas of the system.						*New Action*
MJB-18	Action 28	Improve and Upgrade the Stormwater Management piping under the Amtrak railroad lines and pipes that drain into the Amtrak railroad cut in the borough.						*New Action*
MJB-19	Action 29	Repair and prevent erosion from stormwater near the Barbara St Bridge spanning the Amtrak railroad cut.						*New Action*
MJB-20	Action 30	Purchase two mobile generator units to power sewer or water facilities in the event of major power loss to maintain service to the borough.						*New Action*

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com) by Friday, November 15

Jurisdiction: Mount Joy Borough

Name/Title of Individual Completing Worksheet: Philip Colvin

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Y	
Dam Failure	Low	Y	
Drought	Medium	Low	Very little agriculture in the borough.
Earthquake	Low	Y	
Environmental Hazards: Gas and Pipeline	Medium	Y	
Environmental Hazards: Hazardous Materials	Medium	Y	
Flood, Flash Flood, Ice Jam	High	Y	
Hailstorm	Medium	Y	
Invasive Species	Medium	Low	Very little agriculture in the borough.
Nuclear Incident	Medium	Y	
Pandemic and Infectious Disease	Medium	Y	
Radon Exposure	High	Y	
Subsidence, Sinkhole	High	Y	
Substance Use Disorder and Mental Health	Medium	Y	
Terrorism	Medium	Y	
Tornado, Windstorm	Medium	Y	
Transportation Accident	High	Y	
Utility Interruption	High	Y	
Wildfire	Medium	Low	No large areas of vegetation in the borough.
Winter Storm	Medium	Y	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Mount Joy Borough

Name/Title of Individual Completing Worksheet: Philip A Colvin

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Capacity of old and aging stormwater management systems are sometimes exceeded during times if high rain fall rates.	The Borough Public Works has identified areas that have issues and is prepared to make upgrades or cleanouts if funding is available. This would include replacing terracotta storm water pipes to prevent ruptures and cleaning out existing pipes.	Flood/Flash Flood

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Waste Water Treatment Plant could be shut down by high water from the Little Chiques Creek	Contruct a Flood Wall around the plant to prevent flood waters from encroaching on the plant and causing a shutdown.	Flood/Flash Flood

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Mount Joy Township

Hazard Identification and Risk Evaluation Worksheet

Name: Curtis Thompson Title: EMC

Jurisdiction: Elizabethtown Boro Email: cjthompson@etownareaema.org
Mount Joy Township
West Donegal Township

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	I	Agriculture & wildfire Water supply
Earthquake	NC	
Flood, Flash Flood, Ice Jam	I	Will check with Boro/Twp managers
Hailstorms	NC	
Invasive Species	I	Spotted Lantern Flies Emerald Ash Borer
Pandemic	I	congregate care; supply chain consistency in procedure, Avian Flu
Radon Exposure	NC	Testing/Removal
Subsidence and Sinkholes	NC	Region is geologically vulnerable
Tornado and Windstorm	I	increasing frequency property damage, life safety.
Wildfire	I	Weather window is increasing
Winter Storm	I	Drifted Roads, Flooding at warmer times (riverine)
Human-Caused Hazards		
Dam Failure	[redacted] NC	
Environmental Hazards (Hazmat)	I	Industrial premises SARA sites, over the road, Rail
Nuclear Incidents	D	TMI Decomissioned
Transportation Accidents	NC	
Utility Interruption	NC	Water impact from Drought Long term care facilities generators

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Capability Assessment Survey

Name: Justin Evans

Title: Zoning Officer

Jurisdiction: Mount Joy Township

Email: justin@mtjoytwp.org

Phone Number: 717-367-8917

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	X	1/21/2019			adopted via Resolution 05-2019
Emergency Operations Plan					
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan					
NFIP	X	3/21/2016			updated via Ordinance 300-2016
NFIP – Community Rating System					
Floodplain Regulations	X	3/21/2016			adopted via Ordinance 300-2016
Floodplain Management Plan					
Zoning Regulations	X	2/19/2024			last amended via Ord. 342-2024

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Subdivision Regulations	X	2/19/2024			last amended via Ord. 342-2024
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	X		X		new Regional Comp Plan to be adopted this summer/fall
Open Space Management Plan (or Parks/Rec or Greenways Plan)	X	7/17/2023			adopted via Res. 09-2023
Stormwater Management Plan / Ordinance	X	9/19/2022			last amended via Ord. 338-2022
Natural Resource Protection Plan					
Capital Improvement Plan	X	4/18/2016			adopted via Res. 08-2016
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation					
Building Code	X				through PA Labor & Industry/Legislature
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X		Zoning officer	
Planners or engineers (with natural and/or human caused hazards knowledge)				
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		Township Engineer	
Emergency Manager	X		Regional EMA	
Floodplain Manager	X		Zoning officer	
Land Surveyors				
Scientists or staff familiar with the hazards of the community				
Personnel skilled in GIS and/or FEMA's HAZUS program	X		Zoning officer	
Grant writers or fiscal staff to handle large or complex grants				
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming	X			
Community Development Block Grants (CDBG)		X		
Special Purpose Taxes		X		
Gas / Electric Utility Fees		X		
Water / Sewer Fees		X		
Stormwater Utility Fees		X		
Development Impact Fees	X			traffic / park impact fees
General Obligation, Revenue, and/or Special Tax Bonds	X			
Partnering Arrangements or Intergovernmental Agreements	X			
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification		X		
Natural disaster or safety related school programs		X		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)		X		
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		X		
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability	X		
Administrative and Technical Capability	X		
Financial Capability	X		
Education and Outreach	X		

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Justin Evans Title: Zoning Officer

Jurisdiction: Mount Joy Township Email: justin@mtjoytwp.org

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Yes	available at Township office
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	Yes	March 21, 2016
c. Does the municipality support requests for map updates?	If yes, specify how.	Yes	has not occurred recently (2017)
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	Yes	has not come up yet
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	Yes	has not come up yet
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	Yes	official records maintained by Twp. Sec.

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	Yes	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	?	only in accordance w/ Ch. 10 Floodplains
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	Yes	zoning officer
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Yes	zoning officer
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	Yes	zoning officer
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	Yes	if enforcement is required, violation process in Ch. 10 initiated by zoning officer
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System ✓ Prohibition of production or storage of chemicals in SFHA ✓ Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA ✓ Prohibition of certain types of residential housing (manufactured homes) in SFHA ✓ Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	Yes	enacted prohibitions in Ch. 10 for: - chemical production/storage - manufactured homes - hospitals, nursing homes, jails, prisons - new res/non-res structures

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	No	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	No	
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	Yes	can provide maps, property info.

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	No
Is the floodplain management an auxiliary function?	Community FPA	Yes
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	permit review, integrated layers into Township's GIS
What are the barriers to running an effective NFIP program in the community?	Community FPA	limited applicability
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	Yes
Are there any outstanding compliance issues (i.e., current violations)?		No
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book unknown

Is a CAV or CAC scheduled or needed?		unknown
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	both
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	meet; adopted model ordinance
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	we check for flood areas upon permit applicatio
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	unknown
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	none known recently
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	unknown
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	unknown
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	No
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	—
What categories and activities provide CRS points and how can the class be improved?		—
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	—

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Justin Evans

Title: Zoning Officer

Jurisdiction: Mount Joy Township

Email: justin@mtjoytwp.org

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

	Goals and Objectives	Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	✓					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.	✓					
LC-3	Action 3	Elevate structures at risk of flooding.	✓					N/A
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	✓					N/A
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	✓					N/A
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	✓					?
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	✓					?
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	✓					
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.	✓					
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local			✓			

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
		regulations to protect new structures constructed in hazard-prone areas.						
MJT-1	Action 11	Protect Wastewater Pump #84 to the 0.2% annual chance flood level.	✓					N/A
MJT-2	Action 12	Raise Koser Road at the approach to the bridge over Conewago Creek.	✓					
MJT-3	Action 13	Raise Prospect Road at the approach to the bridge over Conewago Creek.		✓				bridge to be removed

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com)

Jurisdiction: Mount Joy Township

Name/Title of Individual Completing Worksheet: Curtis Thompson

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	High	
Dam Failure	Low	Low	
Drought	Medium	Medium	
Earthquake	Low	Low	
Environmental Hazards: Gas and Pipeline	Medium	Medium	
Environmental Hazards: Hazardous Materials	Medium	Medium	
Flood, Flash Flood, Ice Jam	High	High	
Hailstorm	Medium	Medium	
Invasive Species	Medium	Medium	
Nuclear Incident	Medium	High	Anticipated recommissioning of nuclear power plant site under Crane Clean Energy.
Pandemic and Infectious Disease	Medium	Medium	
Radon Exposure	High	High	
Subsidence, Sinkhole	High	High	
Substance Use Disorder and Mental Health	Medium	Medium	
Terrorism	Medium	Medium	
Tornado, Windstorm	Medium	Medium	
Transportation Accident	High	Medium	
Utility Interruption	High	High	
Wildfire	Medium	Medium	
Winter Storm	Medium	Medium	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Mount Joy Township

Name/Title of Individual Completing Worksheet: Justin Evans, Zoning Officer

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Increasing threats to police department personnel have carryover effects to township administration since both share the same municipal campus.	Investigate and implement additional security measures on the municipal complex; provide active shooter training to municipal staff.	Terrorism/Civil Unrest

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
N/A		

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
N/A		

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
N/A		

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
N/A		

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed
N/A		

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Potential lack of awareness of the local snow evacuation route network.	Reassess the routes and prepare better graphics and communication materials to the public and first responders.	Winter Storm

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Municipal winter weather resources are not consolidated at the municipal campus. Most resources are located at the campus, but salt and anti-skid materials are currently located at another location.	Consolidate all resources at the municipal complex via a master planning process and construction. This will improve response time and efficiency in responding to forecasted and emergency winter weather events.	Winter Storm

Mountville Borough

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com) by Friday, November 15

Jurisdiction: Mountville Borough

Name/Title of Individual Completing Worksheet: Joe Iacono, OEM Coordinator

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Yes	
Dam Failure	Low	Yes	
Drought	Medium	Yes	
Earthquake	Low	Yes	
Environmental Hazards: Gas and Pipeline	Medium	Yes	
Environmental Hazards: Hazardous Materials	Medium	Yes	
Flood, Flash Flood, Ice Jam	High	Yes	
Hailstorm	Medium	Yes	
Invasive Species	Medium	Yes	
Nuclear Incident	Medium	Yes	
Pandemic and Infectious Disease	Medium	Yes	
Radon Exposure	High	Yes	
Subsidence, Sinkhole	High	Yes	
Substance Use Disorder and Mental Health	Medium	Yes	
Terrorism	Medium	Yes	
Tornado, Windstorm	Medium	Yes	
Transportation Accident	High	Yes	
Utility Interruption	High	Yes	
Wildfire	Medium	Yes	
Winter Storm	Medium	Yes	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Mountville Borough

Name/Title of Individual Completing Worksheet: Nick Oakes Emergency Management Coordinator

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
New EMA coordinator appointed effective January 1, 2025 is not up to speed with borough actions and plans.	Work with EMA coordinator and borough manager/mayor to orient coordinator to current projects and status of emergency items.	All

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Public outreach on EM activities and community preparedness needs to be improved.	New EMA coordinator will work with teams that manage borough social media to include EM and preparedness communications. EMA coordinator will assist in community programs and outreach as available.	All

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed

New Holland Borough

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: J. Richard Fulcher **Title:** Acting EMC

Jurisdiction: New Holland Borough **Email:** jrf@newhollandborough.org

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.		NA
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.		NA
c. Does the municipality support requests for map updates?	If yes, specify how.		NA
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.		NA
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.		NA
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.		NA

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	no	

2. FLOODPLAIN MANAGEMENT Requirement	Recommended Action	Yes/No	Comments
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.		
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.		
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.		
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.		
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.		
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.		

3. FLOOD INSURANCE Requirement	Recommended Action	Yes/No	Comments
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.		NA

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.		NA
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.		NA

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources			
Topic	Source of Information		Comments
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	NA	
Is the floodplain management an auxiliary function?	Community FPA	NA	
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	NA	
What are the barriers to running an effective NFIP program in the community?	Community FPA	NA	
Compliance History			
Topic	Source of Information		Comments
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	YES	
Are there any outstanding compliance issues (i.e., current violations)?		No	
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book	

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	NA
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	NA
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	NA
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	NA
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	NA
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	NA
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	NA
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	NA
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	NA
What categories and activities provide CRS points and how can the class be improved?		NA
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	NA

Capability Assessment Survey

Name: J. Richard Fulcher **Title:** Acting EMC

Jurisdiction: New Holland Borough **Email:** jrf@newhollandborough.org

Phone Number: 717-629-5741

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan					
Emergency Operations Plan			x		
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan					
NFIP			x		
NFIP – Community Rating System			x		
Floodplain Regulations					
Floodplain Management Plan					
Zoning Regulations			x		

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
Subdivision Regulations	x				
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	x				
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance	x				
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation					
Building Code	x				
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	x		Adm	
Planners or engineers (with natural and/or human caused hazards knowledge)	x		Adm	
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)		x		
Emergency Manager	x		Adm	
Floodplain Manager		x		
Land Surveyors		x		
Scientists or staff familiar with the hazards of the community		x		
Personnel skilled in GIS and/or FEMA's HAZUS program	x		Adm	
Grant writers or fiscal staff to handle large or complex grants	x		Adm	
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming		x		
Community Development Block Grants (CDBG)		x		
Special Purpose Taxes		x		
Gas / Electric Utility Fees		x		
Water / Sewer Fees	x		Water Dept. WW Dept.	
Stormwater Utility Fees		x		
Development Impact Fees		x		
General Obligation, Revenue, and/or Special Tax Bonds		x		
Partnering Arrangements or Intergovernmental Agreements	x			
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		x		
StormReady certification		x		
Natural disaster or safety related school programs		x		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	x		Adm	
Public-private partnership initiatives addressing disaster-related issues		x		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		x		
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability	x		
Administrative and Technical Capability		x	
Financial Capability	x		
Education and Outreach		x	

Hazard Identification and Risk Evaluation Worksheet

Name: J. Richard Fulcher **Title:** Acting EMC

Jurisdiction: New Holland Borough **Email:** jrf@newhollandborough.org

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	nc	
Earthquake	nc	
Flood, Flash Flood, Ice Jam	nc	
Hailstorms	nc	
Invasive Species	nc	
Pandemic	nc	
Radon Exposure	nc	
Subsidence and Sinkholes	nc	
Tornado and Windstorm	nc	
Wildfire	nc	
Winter Storm	nc	
Human-Caused Hazards		
Dam Failure	nc	
Environmental Hazards (Hazmat)	nc	
Nuclear Incidents	nc	
Transportation Accidents	nc	
Utility Interruption	nc	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Mitigation Strategy 5-Year Mitigation Plan Review

Name: J. Richard fulcher

Title: Acting EMC

Jurisdiction: New Holland B

Email: jrf@newhollandborough.org

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

	Goals and Objectives	Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Goal	Suggested Additional Goals and/or Objectives	Comments
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.						*NA*
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.						*NA*
LC-3	Action 3	Elevate structures at risk of flooding.						
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.						*NA*
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.						NA
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	x					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.						*NA*
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.			x			*If called*
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.			x			*If called*
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local			x			

		Existing Mitigation Action	Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
		regulations to protect new structures constructed in hazard-prone areas.						

Paradise Township

Hazard Identification and Risk Evaluation Worksheet

Name: David Thompson **Title:** Manager

Jurisdiction: Paradise Township **Email:** paradise.manager@comcast.net

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	**I**	No rain for extended periods of time. Wells running dry.
Earthquake	**NC**	
Flood, Flash Flood, Ice Jam	**I**	Increased flooding events along the Pequea Creek and Calamus Run.
Hailstorms	**NC**	
Invasive Species	**D**	No detection of Spotted Lantern Flys
Pandemic	**NC**	
Radon Exposure	**NC**	
Subsidence and Sinkholes	**NC**	
Tornado and Windstorm	**NC**	
Wildfire	**NC**	
Winter Storm	**D**	Limited snow events over the past several years.
Human-Caused Hazards		
Dam Failure	**NC**	
Environmental Hazards (Hazmat)	**I**	Allan Myers quarry and asphalt plant generates odor, air, noise, and light pollution.
Nuclear Incidents	**NC**	

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Transportation Accidents	**I**	PennDoT intersections along Georgetown Road (896) at S Belmont and White Oak.
Utility Interruption	**NC**	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- Coastal Erosion
- Extreme Temperature
- ~~Hurricane, Tropical Storm, Nor'easter~~
- Landslide
- ~~Lightning Strike~~

Human-Caused

- ~~Building and Structure Collapse~~
- ~~Civil Disturbance~~
- ~~Cyber Terrorism~~
- Environmental Hazards – Coal Mining
- Environmental Hazards – Conventional Oil/Gas Wells
- Environmental Hazards – Gas and Liquid Pipelines
- Environmental Hazards – Unconventional Oil/Gas Wells
- Levee Failure
- Mass Food/Animal Feed Contamination
- ~~Opioid Addiction~~
- ~~Terrorism~~
- Urban Fire/Explosion

Additional Comments:

Capability Assessment Survey

Name: David Thompson **Title:** Manager

Jurisdiction: Paradise Township **Email:** paradise.manager@comcast.net

Phone Number: 717.768.8222

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan			**X**		
Emergency Operations Plan			**X**		
Disaster Recovery Plan			**X**		
Evacuation Plan			**X**		
Continuity of Operations Plan			**X**		
NFIP	**X**			**Zoning Officer**	
NFIP – Community Rating System			**X**	**Zoning Officer**	**In Progress**
Floodplain Regulations	**X**	**4/19/16**		**Paradise Township**	**Subdivision and Land Development Ordinance (2016)**

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Floodplain Management Plan	X				
Zoning Regulations	X	03/17/20		TOWNSHIP SUPERVISORS	WORKING WITH NEIGHBORING MUNICIPALITIES TO REGIONALIZE ZONING
Subdivision Regulations	X				
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	X				
Open Space Management Plan (or Parks/Rec or Greenways Plan)	X				
Stormwater Management Plan / Ordinance	X	10/21/14			
Natural Resource Protection Plan			X		
Capital Improvement Plan			X		
Economic Development Plan			X		
Historic Preservation Plan					
Farmland Preservation	X				
Building Code	X				
Fire Code	X				
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X		Rettew/Lancaster Co Planning	
Planners or engineers (with natural and/or human caused hazards knowledge)	X		Rettew	
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		Rettew	
Emergency Manager	X		Bob Devonshire	
Floodplain Manager		X		
Land Surveyors	X		Rettew	
Scientists or staff familiar with the hazards of the community		X		
Personnel skilled in GIS and/or FEMA's HAZUS program	X		Wally Hockensmith/David Thompson	
Grant writers or fiscal staff to handle large or complex grants	X		Rettew/David Thompson	
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming		X		
Community Development Block Grants (CDBG)	X			
Special Purpose Taxes	X			
Gas / Electric Utility Fees		X		
Water / Sewer Fees	X			
Stormwater Utility Fees		X		
Development Impact Fees		X		
General Obligation, Revenue, and/or Special Tax Bonds	X			
Partnering Arrangements or Intergovernmental Agreements	X			
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification		X		
Natural disaster or safety related school programs		X		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	X		PARADISE FIRE CO & PEQUEA VALLEY FIRE CO	
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		X		
Other		X		

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability		X	
Administrative and Technical Capability			X
Financial Capability		X	
Education and Outreach	X		

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name:	**David Thompson**	**Title:**	**Manager**
Jurisdiction:	**Paradise Township**	**Email:**	**paradise.manager@comcast.net**

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	***Recommended Action***	***Yes/No***	***Comments***
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	YES	https://msc.fema.gov/portal/search?AddressQuery=PARADISE%20TOWNSHIP%20LANCASTER%20PA
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	No	In Progress
c. Does the municipality support requests for map updates?	If yes, specify how.	Yes	As defined in Article 1201 section 4 of the Zoning Ordinance as 2003 as amended.
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	Yes	As defined in Article 1201 section 4 of the Zoning Ordinance as 2003 as amended.
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	Yes	As defined in Article 1201 section 4 of the Zoning Ordinance as 2003 as amended.
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	Yes	As defined in Article 1201 section 4 of the Zoning Ordinance as 2003 as amended.

2. FLOODPLAIN MANAGEMENT			
Requirement	***Recommended Action***	***Yes/No***	***Comments***
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	Yes	Section 12 of our Zoning Ordinance of 2003 as amended
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	yes	Zoning Officer
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	Yes	Zoning Officer
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Yes	Zoning Officer
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	yes	Zoning Official
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	Yes	Zoning Official is tasked with this process.
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: ● Participation in the Community Rating System ● Prohibition of production or storage of chemicals in SFHA ● Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA ● Prohibition of certain types of residential housing (manufactured homes) in SFHA ● Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	no	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	no	in progress
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	No	In Progress
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	No	In Progress

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	
Is the floodplain management an auxiliary function?	Community FPA	
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Permit reviews, coordination with Township Engineer, issues or declines permits, fields requests for information about the steps, procedures and processes for floodplain related activities.
What are the barriers to running an effective NFIP program in the community?	Community FPA	Staffing availability
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	Yes
Are there any outstanding compliance issues (i.e., current violations)?		no

When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book
Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	Yes, they meet minimum requirements
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	Permit is submitted to the Zoning Officer; project is reviewed by the Township Engineer, County Planning Commission, Township Planning Commission; Project is presented for approval to the Board of Supervisors at a public meeting; once all approvals or denials are in place the Zoning Officer issues or denies the permit request.
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	No
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Mitigation Strategy 5-Year Mitigation Plan Review

Name: _____ Title: _____

Jurisdiction: Paradise Twp Email: _____

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The

questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	IN PLACE
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	IN PLACE
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	IN PLACE
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	IN PLACE
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	NOT IN PLACE
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	NOT IN PLACE
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	IN PLACE
Objective 2.5	Protect the health of County residents from disease.	IN PLACE
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	IN PLACE
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	IN PLACE

Objective 3.3	Ensure adequacy of equipment and technology.	IN PLACE
Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	IN PLACE
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	IN PLACE
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	IN PLACE
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	IN PLACE
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	IN PLACE
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	IN PLACE

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.	X					
LC-3	Action 3	Elevate structures at risk of flooding.	X					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	X					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.						
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.				X		
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.			X			
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.			X			
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.			X			

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.			X			
LC-18	Action 11	Work with the Amish community to protect their critical facilities (e.g., schools) in the floodplain.			X			
ParT-1	Action 12	Protect the Paradise Township Sewer Authority WWTP to the 0.2% annual chance flood level.			X			
ParT-2	Action 13	Protect Wastewater Pump #89 to the 0.2% annual chance flood level.			X			
ParT-3	Action 14	Protect Wastewater Pump #91 to the 0.2% annual chance flood level.			X			

Penn Township

Hazard Identification and Risk Evaluation Worksheet

Name: Mark Hiester **Title:** Manager

Jurisdiction: Penn Township **Email:** manager@penntwplanco.org

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	I	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	I	
Hailstorms	NC	
Invasive Species	I	
Pandemic	I	
Radon Exposure	I	More people, dwellings
Subsidence and Sinkholes	I	More development
Tornado and Windstorm	NC	
Wildfire	I	
Winter Storm	D	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	I	
Utility Interruption	D	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- x☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- x☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- X☐ Mass Food/Animal Feed Contamination
- X Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Mass Feed: Avian Flu.

Capability Assessment Survey

Name: Mark Hiester **Title:** Manager

Jurisdiction: Penn Township **Email:** manager@penntwplanco.org

Phone Number: 717-665-4508

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**X**	**2/11/2019**		**County EMA, Penn**	
Emergency Operations Plan	**X**	**2011**		**Penn**	
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan					
NFIP					
NFIP – Community Rating System	**X**	**2019**		**Penn**	
Floodplain Regulations	**X**	**2016**		**Penn**	
Floodplain Management Plan					
Zoning Regulations	**X**	**2021**		**Penn**	

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Subdivision Regulations	**X**	**2011**		**Penn**	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	**X**	**2010**	**X**	**Penn**	
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance	**X**	**2014**			
Natural Resource Protection Plan					
Capital Improvement Plan	**X**	**2024**			
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation	**X**	**2024**			
Building Code	**X**	**2006**			
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X		Penn	
Planners or engineers (with natural and/or human caused hazards knowledge)	X		Penn	
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)				
Emergency Manager	X		MREMA	
Floodplain Manager	X		Penn	
Land Surveyors				
Scientists or staff familiar with the hazards of the community	X		Penn	
Personnel skilled in GIS and/or FEMA's HAZUS program	X		Penn	
Grant writers or fiscal staff to handle large or complex grants	X		Penn	
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming	X		Penn	
Community Development Block Grants (CDBG)				
Special Purpose Taxes				
Gas / Electric Utility Fees				
Water / Sewer Fees	X		Penn, NWLCA	
Stormwater Utility Fees				
Development Impact Fees				
General Obligation, Revenue, and/or Special Tax Bonds	X		Penn, NWLCA	
Partnering Arrangements or Intergovernmental Agreements	X		Penn	
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification				
StormReady certification				
Natural disaster or safety related school programs				
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)				
Public-private partnership initiatives addressing disaster-related issues				
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	X		Penn, Chiques Creek Watershed Alliance	
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability			X
Administrative and Technical Capability			X
Financial Capability			X
Education and Outreach		X	

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Mark Hiester **Title:** Manager

Jurisdiction: Penn Township **Email:** manager@penntwplanco.org

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Yes	ON FEMA website
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	Yes	2019
c. Does the municipality support requests for map updates?	If yes, specify how.	Yes	Yes if PennDOT provides the needed HEC-2 and other studies for its bridge projects.
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	No	
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	No	
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	Yes	Zoning and Manager

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.		

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	Yes	Zoning
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	Yes	Zoning
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Yes	Zoning
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	Yes	Zoning
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	Yes	Zoning
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	Yes	Zoning

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	Yes	Zoning, Manager

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	Yes	Zoning, Manager
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	No	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	Yes
Is the floodplain management an auxiliary function?	Community FPA	Yes
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Permit Review
What are the barriers to running an effective NFIP program in the community?	Community FPA	Applicant Willingness
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	Yes
Are there any outstanding compliance issues (i.e., current violations)?		No
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	4/5/16 https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	Digital
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	Yes, as required by the state
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	A zoning-type hearing is often required
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	Yes
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	2.0
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	No

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Mark Hiester | Title: Manager

Jurisdiction: Penn Twp | Email: manager@penntwplanco.org

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	Work with proposed county Act 167 stormwater plans
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective	Protect from injection well hazardous substance leaks and effects	**Not here yet but could be someday.**
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.			X			
LC-3	Action 3	Elevate structures at risk of flooding.	X					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	X					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	X					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	X					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	X					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.			X			
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.			X			
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local			X			

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
		regulations to protect new structures constructed in hazard-prone areas.						
PennT-1	Action 11	Clear obstructions from the stormwater management system near the intersection of Fruitville Pike/New Charlotte Street and Main Street (PA-72).	X					
PennT-2	Action 12	Protect the Manheim Borough Authority WWTP to the 0.2% annual chance flood level.	X					
PennT-3	Action 13	Protect Wastewater Pump #199 to the 0.2% annual chance flood level.	X					
PennT-4	Action 14	Protect Well #39 to the 0.2% annual chance flood level.	X					
PennT-5	Action 15	Update stormwater management regulations to make them more restrictive for new development.		X				
PennT-6	Action 16	Upgrade stormwater management infrastructure along White Oak Road south of Hamaker Road.	X					
PennT-7	Action 17	Upgrade stormwater management infrastructure at the intersection of Stiegel Valley Road and White Oak Road.	X					

Pequea Township

Hazard Identification and Risk Evaluation Worksheet

Name: MIKE HALL Title: EMC

Jurisdiction: PEQUEA TWP Email: grinderguy@comcast.net

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	I AGRICULTURE WILDFIRE RISK	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	I DAMAGED TREES UTILITIES	
Pandemic	NC	
Radon Exposure	NC	
Subsidence and Sinkholes	I ROADWAY HAZZARDS	
Tornado and Windstorm	I - FREQUENCY	
Wildfire	I - PROXIMITY URBAN INTERFACE	
Winter Storm	D	USE MORE SALT
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	I DAMAGED TREES	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☒ Extreme Temperature
- ☒ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☒ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☒ Civil Disturbance
- ☒ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☒ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☒ Urban Fire/Explosion

Additional Comments:

Capability Assessment Survey

Name: Mike Hall **Title:** OEM Coordinator

Jurisdiction: Pequea Township **Email:** grinderguy@comcast.net

Phone Number:

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**X**	**2019**		**County EMA**	**County last updated in 2019, Township participated**
Emergency Operations Plan					
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan					
NFIP					
NFIP – Community Rating System					
Floodplain Regulations					
Floodplain Management Plan					
Zoning Regulations	**X**			**MUNICIPAL ZO**	

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Subdivision Regulations	X				
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	X				
Open Space Management Plan (or Parks/Rec or Greenways Plan)	X				
Stormwater Management Plan / Ordinance					
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation	X			COUNTY	
Building Code	X				
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)		X		
Planners or engineers (with natural and/or human caused hazards knowledge)	X			
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X			
Emergency Manager	X			
Floodplain Manager		X		
Land Surveyors	X			
Scientists or staff familiar with the hazards of the community		X		
Personnel skilled in GIS and/or FEMA's HAZUS program		X		
Grant writers or fiscal staff to handle large or complex grants	X			
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming	X			
Community Development Block Grants (CDBG)		Unknown		
Special Purpose Taxes		Unknown		
Gas / Electric Utility Fees		Unknown		
Water / Sewer Fees		Unknown		
Stormwater Utility Fees		Unknown		
Development Impact Fees		Unknown		
General Obligation, Revenue, and/or Special Tax Bonds		Unknown		
Partnering Arrangements or Intergovernmental Agreements		Unknown		
Other	X		DCED	Emergency generators, equipment

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification		X		
Natural disaster or safety related school programs		X		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)		X		
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		X		
Other		X		

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability		X	
Administrative and Technical Capability	X		
Financial Capability	X		
Education and Outreach	X		

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name:	**Mike Hall**	**Title:**	**OEM Coordinator**
Jurisdiction:	**Pequea Township**	**Email:**	**grinderguy@comcast.net, secretary@pequeatownship.org**

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	***Recommended Action***	***Yes/No***	***Comments***
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	YES	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	NO	
c. Does the municipality support requests for map updates?	If yes, specify how.	NO	
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	NO	
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	NO	
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	YES	MUNICIPAL OFFICE

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	YES	
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	NO	
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	NO	
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	NO	
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	NO	
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	YES	ENFORCEMENT
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	NO	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	NO	
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	NO	
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	NO	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	NO
Is the floodplain management an auxiliary function?	Community FPA	NO
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Unknown
What are the barriers to running an effective NFIP program in the community?	Community FPA	Staffing, funding, training, awareness
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	Unknown
Are there any outstanding compliance issues (i.e., current violations)?		NO

When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book
Is a CAV or CAC scheduled or needed?		Unknown
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	DIGITAL
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	YES
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	ZHB APPROVAL
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	Unknown
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	Unknown
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	Unknown, there are some but number is not known
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	Unknown
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	No
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	Not applicable
What categories and activities provide CRS points and how can the class be improved?		Not applicable
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	Not applicable

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Mike Hall | Title: EMC

Jurisdiction: Pequea Twp | Email: grinderguy@comcast.net

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	Continuing
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	Continuing. Need further assessment of disease weakened trees along roadways.
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	Continuing. Need to support funding for local fire dept. and mitigation and prevention work.
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	Continuing. Create funding options to allow EMC to be more proactive by being at least part-time staff to meet preparedness , mitigation, and educational goals.
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal	**Access Wildland Urban -Interface hazards in effected municipalities.**	
Objective	Identify and give a hazard rating to particular geographic areas.	
Objective	Educate public on existing hazards.	
Objective	Develop plans, training and equipment to support fire dept.	

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X		X			
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.			X			
LC-3	Action 3	Elevate structures at risk of flooding.	X		X			
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	x					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	X		X			
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	X					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	X					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	X		X			
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.	X					
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local	X		X			

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
		regulations to protect new structures constructed in hazard-prone areas.						
LC-5	Action 11	Remove any dilapidated or structurally unsound dams that pose a flooding threat to the community.	X					
LC-13	Action 12	Work with PPL to protect the Holtwood facility to the 0.2% annual chance flood level.	X					

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com) by Friday, November 15

Jurisdiction: Martic Twp., Pequea Twp. Conestoga Twp

Name/Title of Individual Completing Worksheet: Mike Hall

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	y	
Dam Failure	Low	y	Both dams reside within our township's bounderies
Drought	Medium	y	Majority on private wells. Agriculture is large economic driver here.
Earthquake	Low	y	
Environmental Hazards: Gas and Pipeline	Medium	y	Our Townships have a larger than other amount present.
Environmental Hazards: Hazardous Materials	Medium	y	Agricultural and transportation
Flood, Flash Flood, Ice Jam	High	y	Our townships directly in path of Pequea Creek
Hailstorm	Medium	y	
Invasive Species	Medium	y	
Nuclear Incident	Medium	y	Martic Twp. Within EPZ
Pandemic and Infectious Disease	Medium	y	
Radon Exposure	High	y	
Subsidence, Sinkhole	High	y	
Substance Use Disorder and Mental Health	Medium	y	
Terrorism	Medium	y	
Tornado, Windstorm	Medium	y	
Transportation Accident	High	y	
Utility Interruption	High	y	Rual setting for several sub-stations
Wildfire	Medium	y	Large areas of Urban-Interface are present in all 3 of my townships
Winter Storm	Medium	y	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Pequea Township

Name/Title of Individual Completing Worksheet: Mike Hall, OEM Coordinator

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Floodplain Administrator is unknown for the Township of Pequea.	Go into the flood Damage Prevention Ordinance and identify the FPA. If the FPA individual identified should be altered, update the ordinance and adopt the amendment.	Flood/Flash Flood/Ice Jams

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
There are culverts throughout the Township which may be undersized or have failing components which are located underground.	When funding and staffing is available, the Township will address the culvert issues. If possible, the Township will assess the feasibility of hiring external contractors. The Township will continue its assessment of the integrity and replacement schedule of the culverts throughout its jurisdiction.	Flood/Flash Flood/Ice Jams, Winter Storm

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Pequea Creek has flooding potential throughout the Township. Properties within the Township have likely been impacted by the Creek to some extent, but no reports have been sent to the Township.	The Township will conduct outreach to property owners along the Pequea Creek to identify whether they have incurred property damage from flooding associated with the Pequea Creek. The Township will develop a list of property owners which may be interested in flood mitigation measures, included elevation or acquisition.	Flood/Flash Flood/Ice Jams

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed
The Township may be unaware of all the socially vulnerable populations in its jurisdiction but is aware of the organizations which may be communicating with them. Educating these populations will increase the Township's resiliency to hazards.	The Township will work with local NGOs, churches, and other community locations to provide information relating to hazard mitigation and preparedness geared toward the readiness of individuals, the community as a whole, and properties.	Cyber Incidents, Dam Failure, Drought, Earthquake, Gas and Liquid Pipelines, Hazardous Materials Releases, Flood/Flash Flood/Ice Jams, Hailstorms, Invasive Species, Nuclear Incidents, Pandemic and Infectious Disease, Radon Exposure, Subsidence/Sinkholes, Substance Use Disorder, Terrorism, Tornado/Windstorm, Transportation Accidents, Utility Interruption, Wildfire, Winter Storm

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Portions of the Township are located within the Wildfire Interface/Intermix areas. These areas are particularly at risk to the wildfire hazard, as this is	The Township will take a variety of actions to reduce the risk to the wildfire hazard in the interface and intermix areas:	Wildfire

Problem	Solution	Hazard(s) Addressed
the location which the built environment meetings wooded or forested areas. At these locations, a wildfire is more likely to impact the built environment, causing potential economic hardship to property and business owners.	1. Educate property and business owners how to mitigate risk, including managing vegetation, keeping yards clear, ensuring there is enough boundary between the wooded or forested areas and their property. 2. Ensure Township employees (DPW, Fire Services) maintain the wooded or forested areas by clearing and maintaining ground vegetation and utilizing prescribed burns when and where appropriate. 3. Consider joining the Firewise Program, which teaches people how to adapt to living with wildfire and encourages neighbors to work together and take action now to prevent losses. 4. Write and adopt a Community Wildfire Protection Plan which would provide a framework for mitigating wildland fire impacts throughout the Township.	
The Township has a large agricultural community whose livelihood relies on its practices. These agricultural practices, as well as everyday activities, consume portions of the available water supply. The rural water supply may become at risk during times of drought or when there are wildfires, as first responders also rely on the water supply to extinguish both wildfires and household fires.	The Township will conduct research into other avenues for water supplies and will consider the following strategies: 1. Prioritizing investment in water infrastructure by developing and maintaining water harvesting structures, and building new water systems, storage tanks, and treatment facilities while fostering community engagement. 2. Promoting the protection of watersheds and ensuring sustainable groundwater extraction. 3. Empower the community with the knowledge and skills to manage their water resources by providing educational programs on how to improve their current water management practices ad become more sustainable. 4. Enforce standards for water quality, promote efficient water use, and incentivize conservation efforts. 5. Leverage technology to improve water management systems, including solar-powered pumps, remote sensing for monitoring water levels, and mobile	Drought, Utility Interruption, Wildfire

Problem	Solution	Hazard(s) Addressed
	applications for reporting issues can enhance water access and management.	

Providence Township

Hazard Identification and Risk Evaluation Worksheet

Name: Vicki Eldridge **Title:** Township Manager

Jurisdiction: Providence Township **Email:** vicki@providencetownship.com

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	NC	
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Capability Assessment Survey

Name: Vicki Eldridge **Title:** Township Manager

Jurisdiction: Providence Township **Email:** vicki@providencetownship.com

Phone Number: 717-786-7596

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**X**	**3/4/19**		**Board of Supervisors**	
Emergency Operations Plan					
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan					
NFIP					
NFIP – Community Rating System					
Floodplain Regulations					
Floodplain Management Plan	**X**	**3/16/16**		**Board of Supervisors**	
Zoning Regulations	**X**	**12/11/23**		**Board of Supervisors**	

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Subdivision Regulations	**X**	**9/14/20**		**Board of Supervisors**	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	**X**	**10/6/08**		**Board of Supervisors**	
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance	**X**	**5/5/14**		**Board of Supervisors**	
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation					
Building Code					
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)		X		
Planners or engineers (with natural and/or human caused hazards knowledge)		x		
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)		x		
Emergency Manager		x		
Floodplain Manager		x		
Land Surveyors		x		
Scientists or staff familiar with the hazards of the community		x		
Personnel skilled in GIS and/or FEMA's HAZUS program		x		
Grant writers or fiscal staff to handle large or complex grants		x		
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming		x		
Community Development Block Grants (CDBG)		x		
Special Purpose Taxes		x		
Gas / Electric Utility Fees		x		
Water / Sewer Fees		x		
Stormwater Utility Fees		x		
Development Impact Fees		x		
General Obligation, Revenue, and/or Special Tax Bonds		x		
Partnering Arrangements or Intergovernmental Agreements		x		
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		x		
StormReady certification		x		
Natural disaster or safety related school programs		x		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	x		Township Manager	Educational information is included in bi-annual newsletter
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		x		
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability	x		
Administrative and Technical Capability	x		
Financial Capability	x		
Education and Outreach	x		

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Vicki Eldridge **Title:** Township Manager

Jurisdiction: Providence Township **Email:** vicki@providencetownship.com

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	yes	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	no	
c. Does the municipality support requests for map updates?	If yes, specify how.		
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	yes	
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	yes	
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	Yes	Zoning Officer

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	yes	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	yes	Zoning officer
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	yes	Zoning Officer
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	yes	Zoning Officer
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	yes	Zoning Officer
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	yes	Zoning Officer
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	no	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	yes	Newsletter publication

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	no	
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	yes	Zoning Officer

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	No
Is the floodplain management an auxiliary function?	Community FPA	Yes
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Zoning officer and/or township engineer review all permits and conduct inspections
What are the barriers to running an effective NFIP program in the community?	Community FPA	Lack of community interest
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	Yes
Are there any outstanding compliance issues (i.e., current violations)?		No
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	Both
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	Yes, ordinance was developed to meet regulations
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	Zoning officer and/or township engineer review and approve all permits based on the regulations imposed
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Vicki Eldridge | Title: Township manager

Jurisdiction: Providence Twp | Email: vicki@providencetownship.com

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	x					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.			x			
LC-3	Action 3	Elevate structures at risk of flooding.	x					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	x					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	x					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	x					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	x					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	x					
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.	x					
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local			x			

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
		regulations to protect new structures constructed in hazard-prone areas.						
ProvT-1	Action 11	Protect the Quarryville Boro WWTP to the 0.2% annual chance flood level.			x			

Quarryville Borough

Hazard Identification and Risk Evaluation Worksheet

Name: Scott Peiffer Title: Borough Manager

Jurisdiction: Quarryville Borough Email: peiffers@quarryvilleborough.com

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	N/C	
Earthquake	N/C	
Flood, Flash Flood, Ice Jam	I	
Hailstorms	N/C	
Invasive Species	I	
Pandemic	N/C	
Radon Exposure	N/C	
Subsidence and Sinkholes	N/C	
Tornado and Windstorm	N/C	
Wildfire	N/C	
Winter Storm	D	Milder Winters
Human-Caused Hazards		
Dam Failure	N/C	
Environmental Hazards (Hazmat)	N/C	
Nuclear Incidents	N/C	
Transportation Accidents	N/C	
Utility Interruption	N/C	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- x Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Capability Assessment Survey

Name: Scott Peiffer **Title:** Borough Manager

Jurisdiction: Quarryville Borough **Email:** peiffers@quarryvilleborough.com

Phone Number: 717-786-2404

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan					
Emergency Operations Plan	**X**	**1/2022 2/2016**			**Water Operations- 1/2022, Sewer Operations- 2/2016**
Disaster Recovery Plan	**X**	**3/2022**			
Evacuation Plan	**X**				**Exelon Nuclear Emergency Planning**
Continuity of Operations Plan	**X**				**Included in Water/Sewer Operations Plan**
NFIP	**X**				
NFIP – Community Rating System	**X**				
Floodplain Regulations	**X**	**3/2016**			
Floodplain Management Plan					

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
Zoning Regulations	X	11/2011			Zoning update meetings started 4/2024
Subdivision Regulations	X	12/1998			
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	X	9/2022			
Open Space Management Plan (or Parks/Rec or Greenways Plan)			X		
Stormwater Management Plan / Ordinance	X	5/2014			
Natural Resource Protection Plan					
Capital Improvement Plan			X		
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation					
Building Code	X	6/2004			Pa. Construction Code (UCC)
Fire Code					
Other	X	2/2021			Official Map

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)		X		Utilize Lancaster County Planning staff
Planners or engineers (with natural and/or human caused hazards knowledge)		X		
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)		X		Utilize private contractors/engineers
Emergency Manager	X			Appointed Emergency Mgmt. Coord.
Floodplain Manager		X		
Land Surveyors		X		
Scientists or staff familiar with the hazards of the community		X		
Personnel skilled in GIS and/or FEMA's HAZUS program		X		
Grant writers or fiscal staff to handle large or complex grants		X		Utilize private contracted firm
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming	X		Borough Manager/Secretary	
Community Development Block Grants (CDBG)	X		Borough Manager/Secretary	
Special Purpose Taxes	X		Borough Manager/Secretary	
Gas / Electric Utility Fees		X		
Water / Sewer Fees	X		Borough Authority	
Stormwater Utility Fees		X		
Development Impact Fees	X		Borough Manager/Secretary	
General Obligation, Revenue, and/or Special Tax Bonds	X		Borough Manager/Secretary	
Partnering Arrangements or Intergovernmental Agreements	X		Borough Manager/Secretary	
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification		X		
Natural disaster or safety related school programs	X		Quarryville Borough police Dept.	Current SRO Program with Solanco S.D.
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	X		Quarryville Borough	Information available in Borough office lobby and new resident packets
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		X		
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability		X	
Administrative and Technical Capability		X	
Financial Capability		X	
Education and Outreach		X	

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Scott Peiffer **Title:** Borough Manager

Jurisdiction: Quarryville Borough **Email:** peiffers@quarryvilleborough.com

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Yes	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	Yes	
c. Does the municipality support requests for map updates?	If yes, specify how.	Yes	Aides residents with understanding process
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	N/A	
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	Yes	Communication with Residents
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	Yes	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	Yes	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	Yes	Zoning Office
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	"	"
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	"	"
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	"	"
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	"	Via Notices of Violations Issued by Zoning Office
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	Yes	All listed except CRS

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	Yes	Website

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	Yes	USPS Mailing
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	No	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	No
Is the floodplain management an auxiliary function?	Community FPA	No
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Zoning Officer verifies compliance with all building and zoning permit issues.
What are the barriers to running an effective NFIP program in the community?	Community FPA	None
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	Yes
Are there any outstanding compliance issues (i.e., current violations)?		No
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book None

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	Both
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	Meet FEMA Requirements via DCED/FEMA Template with Zoning Ordinance Amendment
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	Zoning Officer reviews all zoning/building permits for compliance
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	Unknown
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	Unknown
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	Unknown
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	Unknown
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	Unknown
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Scott Peiffer Title: Borough Manager

Jurisdiction: Quarryville B Email: office@quarryvilleborough.com

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives and actions address current and expected conditions?
- Should [illegible]
- What is the status of [illegible]
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

	Goals and Objectives	Comments
Goal 1	**Prevent injury/death and damage from natural and human-made hazards in Lancaster County.**	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	**Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.**	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	**Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.**	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	**Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.**	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	**Improve and maintain stormwater management systems to reduce backup and flooding.**	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	**Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.**	Continue working on EMS issues in the County.
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	**Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.**	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1-percent-annual-chance floodplain, to convert them to open space.						
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.		X				
LC-3	Action 3	Elevate structures at risk of flooding.						
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	X					
LC-9	Action 5	Work with the municipal and property owners to provide a wider buffer between the creeks and vegetation.						
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.		X				
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.						
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	X					
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.						
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local			X			

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
		regulations to protect new structures constructed in hazard-prone areas.						

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com)

Jurisdiction: Quarryville Borough

Name/Title of Individual Completing Worksheet: Scott Peifer - Borough Manager

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Y	
Dam Failure	Low	Y	
Drought	Medium	Y	
Earthquake	Low	Y	
Environmental Hazards: Gas and Pipeline	Medium	Y	
Environmental Hazards: Hazardous Materials	Medium	Y	
Flood, Flash Flood, Ice Jam	High	Y	
Hailstorm	Medium	Y	
Invasive Species	Medium	Y	
Nuclear Incident	Medium	Y	
Pandemic and Infectious Disease	Medium	Y	
Radon Exposure	High	Y	
Subsidence, Sinkhole	High	Y	
Substance Use Disorder and Mental Health	Medium	Y	
Terrorism	Medium	Y	
Tornado, Windstorm	Medium	Y	
Transportation Accident	High	Y	
Utility Interruption	High	Y	
Wildfire	Medium	N Low	Lack of forested areas which fuel wildfires
Winter Storm	Medium	Y	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Quarryville Borough

Name/Title of Individual Completing Worksheet: Scott Peiffer Borough Manager

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
No generator for Municipal Building which houses Admin. Police and Public Works.	Continue to search for funding to provide & install generator. 102 Kw generator $55,000 - possible LSA grant	Loss of power - Ability to provide critical facilities

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Culvert in poor condition on Broad St. at intersection of Second St.	Replace culvert & guiderail - cost est. to be 425,000. Multimodal Tran. Fund is potential source of funding - 2027	poor condition culvert & roadway repaired - flood Hazard addressed

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Rapho Township

Hazard Identification and Risk Evaluation Worksheet

Name: Lori Shenk **Title:** Emergency Mgmt Coordinator

Jurisdiction: Rapho Township **Email:** lshenk@dejazzd.com

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	D	Natural immunity achieved
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	D	Occurrences of storms and severity have been less prevalent in this past five year span
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☒ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Cyber threats/cyber hacking have been generally more common in this five year span (may not be terrorism)

Capability Assessment Survey

Name: Lori Shenk **Title:** EM Coordinator

Jurisdiction: Rapho Township **Email:** lshenk@dejazzd.com

Phone Number: 717-371-8282

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**X**	**2020**		**County EMA**	**Adopted County Plan**
Emergency Operations Plan	**X**	**2023**		**Rapho Township**	
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan	**X**				
NFIP					
NFIP – Community Rating System					
Floodplain Regulations	**X**				
Floodplain Management Plan	**X**				
Zoning Regulations	**X**	**2022**			

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Subdivision Regulations	**x**	**2018**			
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	**X**	**2010**	**X**	**Penn, Rapho and Manheim Borough**	**Should be updated mid 2025**
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance	**X**	**2022**			
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation					
Building Code	**x**	**2004**			**Statewide Building Code**
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X		Rapho Twp Planning Commission	
Planners or engineers (with natural and/or human caused hazards knowledge)		x		
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		Drew Keller, Zoning officer and BCO	BCO as of 12/1023
Emergency Manager	X		Lori Shenk	
Floodplain Manager	X		Drew Keller Zoning Officer	
Land Surveyors		x		
Scientists or staff familiar with the hazards of the community		x		
Personnel skilled in GIS and/or FEMA's HAZUS program		x		
Grant writers or fiscal staff to handle large or complex grants		x		
Other		x		

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming		x		
Community Development Block Grants (CDBG)		x		
Special Purpose Taxes		x		
Gas / Electric Utility Fees		x		
Water / Sewer Fees		x		
Stormwater Utility Fees		x		
Development Impact Fees		x		
General Obligation, Revenue, and/or Special Tax Bonds		x		
Partnering Arrangements or Intergovernmental Agreements		x		
Other		x		

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		x		
StormReady certification		x		
Natural disaster or safety related school programs		x		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	x		Rapho Newsletter 2 X per year	
Public-private partnership initiatives addressing disaster-related issues		x		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	X		Chiques Creek Watershed Alliance	
Other		x		

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability	x		
Administrative and Technical Capability	x		
Financial Capability	x		
Education and Outreach	x		

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Lori Shenk **Title:** EM Coordinator

Jurisdiction: Rapho Township **Email:** lshenk@dejazzd.com

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Yes	On www.raphotownship.com under "residents" and then under "emergency management link".
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	Yes	4-5-2016
c. Does the municipality support requests for map updates?	If yes, specify how.	Yes	
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	Yes	Any updates to FEMA mapping require FEMA review and approval
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	Yes	Providing FIRM mapping to residents, providing guidance on selecting consultnats to determine limits of floodplain
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	N/A	No changes since date of current mapping

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.		

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	Yes	The Zoning Officer is appointed as the Floodplain Administrator
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	Yes	Floodplain Administrator with assistance of the Township Engineer
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Yes	Floodplain Administrator with assistance of the Township Engineer
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	Yes	
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	Yes	All subdivisions, land developments and applications for new construction are reviewed for complaiiance with floodplain provisions; complaints of activities with floodplains are investigated and if warranted, formal enforcment actions initiated.
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	Yes to all	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	Yes	Thropugh education of applicants within or near floodplains

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.		
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.		

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	No
Is the floodplain management an auxiliary function?	Community FPA	No
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Floodplain administration provided, no insurance administation services provided
What are the barriers to running an effective NFIP program in the community?	Community FPA	None exist
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	Yes
Are there any outstanding compliance issues (i.e., current violations)?		No
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	Exceed by prohibiting any new construction in floodplain district
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	All permits are reviewed by the Floodplain Administrator wioth the assistance of the Townshio Engineer when required
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	Yes
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Lori Shenk | Title: EM Coordinator

Jurisdiction: Rapho Twp | Email: lshenk@dejazzd.com

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	No modification suggested. Objectives are addressed as part of zoning regulation and planning process.
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	No modification suggested. Objectives are addressed as part of zoning regulation and planning process.
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	No modification suggested. Concerns and mitigation efforts ongoing with regular and ongoing meetings with the Township's Fire Advisory Committee, consisting of leadership from the Township and the Emergency Service Departments and Emergency Management
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

		Coordinator.
Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	No modification suggested. Township website, social media and Newsletter provide residents with education and actions to be considered.
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.			✓			
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.			✓			
LC-3	Action 3	Elevate structures at risk of flooding.			✓			
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.			✓			
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	✓					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.		✓				
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	✓					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.			✓			
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.			✓			
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local			✓			

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
		regulations to protect new structures constructed in hazard-prone areas.						
RapT-1	Action 11	Protect Wastewater Pump #55 to the 0.2% annual chance flood level.	✓					
RapT-2	Action 12	Regularly clear obstructions from waterways.	✓					

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com) by Friday, November 15

Jurisdiction: Rapho Township

Name/Title of Individual Completing Worksheet: Lori Shenk

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Y	
Dam Failure	Low	Y	
Drought	Medium	Y	
Earthquake	Low	Y	
Environmental Hazards: Gas and Pipeline	Medium	Y	
Environmental Hazards: Hazardous Materials	Medium	Y	
Flood, Flash Flood, Ice Jam	High	Y	
Hailstorm	Medium	Y	
Invasive Species	Medium	Y	
Nuclear Incident	Medium	Y	
Pandemic and Infectious Disease	Medium	Y	
Radon Exposure	High	Y	
Subsidence, Sinkhole	High	Y	
Substance Use Disorder and Mental Health	Medium	Y	
Terrorism	Medium	Y	
Tornado, Windstorm	Medium	Y	
Transportation Accident	High	Y	
Utility Interruption	High	Y	
Wildfire	Medium	Y	
Winter Storm	Medium	Y	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Rapho Township

Name/Title of Individual Completing Worksheet: Lori Shenk, Randall Wenger

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
None Identified – Capabiliities are regularly reviewed for compliance and internally maintained.		

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
None identified – Critical facilities which need back up power have it. Should this become a need, funding would be designated.		

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
None identified – The Township regularly maintains its stormwater infrastructure and assess needs.		

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
None identified		

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
None identified		

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed
None identified		

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
None identified		

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed
None identified		

Sadsbury Township

Hazard Identification and Risk Evaluation Worksheet

Name: Erik Lofgren **Title:** EMC

Jurisdiction: Sadsbury Twps **Email:** elofgren@christianafire.com

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	I	Seen an Increase in Flash Flooding
Hailstorms	NC	
Invasive Species	I	Spotted lanternfly
Pandemic	D	Covid-19 no longer an issue
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- X Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- X Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Sadsbury Twps has a retention basin along Route 41 and if that should fail would cause significant flooding for Sadsbury twps. and Christiana Borough.

We also have a natural gas pipe line running through our township.

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Erik Lofgren **Title:** EMC

Jurisdiction: Sadsbury Twps **Email:** elofgren@christianafire.com

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.		
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.		
c. Does the municipality support requests for map updates?	If yes, specify how.		
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.		
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.		
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.		

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.		

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.		
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.		
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.		
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.		
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.		
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.		

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.		

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.		
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.		

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	
Is the floodplain management an auxiliary function?	Community FPA	
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	
What are the barriers to running an effective NFIP program in the community?	Community FPA	
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	
Are there any outstanding compliance issues (i.e., current violations)?		
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	.

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Erik Lofgren

Title: Emergency Management Coordinator

Jurisdiction: Sadsbury Twp

Email: elofgren@christianafire.com

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.						
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.						
LC-3	Action 3	Elevate structures at risk of flooding.						
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.						
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.						
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.						
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.						
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.						
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.						
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local						

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
		regulations to protect new structures constructed in hazard-prone areas.						
SadT-1	Action 11	Mt. Vernon Road Runoff Retention Basins - Create two retention basins, redirect catch basin pipes, install a storm drain line, and extend approximately 1/3 mile to relieve runoff into the Christiana Borough watershed.	X					

Capability Assessment Survey

Name: Erik Lofgren **Title:** EMC

Jurisdiction: Sadsbury Twps **Email:** elofgren@christianafire.com

Phone Number: 610-593-6796

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan			**X**	**Sadsbury Twps and Lancaster County**	
Emergency Operations Plan			**X**	**Sadsbury Twps**	
Disaster Recovery Plan			**X**	**Sadsbury Twps**	
Evacuation Plan			**X**	**Sadsbury Twps**	
Continuity of Operations Plan					
NFIP					
NFIP – Community Rating System					
Floodplain Regulations					
Floodplain Management Plan					

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Zoning Regulations	**X**	**12/6/2011**		**Sadsbury Twps**	
Subdivision Regulations	**X**	**5/6/2014**		**Sadsbury Twps**	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)					
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance	**X**	**5/6/2014**		**Sadsbury Twps**	
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation					
Building Code	**X**			**ABI**	**Associated Building Inspections(ABI)**
Fire Code	**X**			**ABI**	**Associated Building Inspections(ABI)**
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X		RAV	
Planners or engineers (with natural and/or human caused hazards knowledge)	X		RAV	
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		RAV	
Emergency Manager	X		Sadsbury Twps	EMC – Erik Lofgren
Floodplain Manager				
Land Surveyors				
Scientists or staff familiar with the hazards of the community				
Personnel skilled in GIS and/or FEMA's HAZUS program		X		
Grant writers or fiscal staff to handle large or complex grants				
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming				
Community Development Block Grants (CDBG)				
Special Purpose Taxes				
Gas / Electric Utility Fees				
Water / Sewer Fees				
Stormwater Utility Fees				
Development Impact Fees				
General Obligation, Revenue, and/or Special Tax Bonds				
Partnering Arrangements or Intergovernmental Agreements				
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification				
StormReady certification				
Natural disaster or safety related school programs				
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	X		Sadsbury Twps	Starting this program at the end of 2024
Public-private partnership initiatives addressing disaster-related issues				
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.				
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability			
Administrative and Technical Capability			
Financial Capability			
Education and Outreach	.		

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Sadsbury Township

Name/Title of Individual Completing Worksheet: _____

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Rain water running across highway on Creek Rd, off of Noble Rd	Create shoulder to catch water to be released into culvert instead of run off onto both sides of Creek Rd. Work performed by Township Public Works Department.	Water run off to other side of street filling residence front yards.

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
RT 41 Williams Run dam had active sinkholes 12 to 15 ft towards the upstream intake structure. Culvert in the dam found cracks that had water leaking. Downstream could have caused residential flooding on their properties.	Restore the dam to its normal operating conditions. Immediately repair damage to the pipe and dam embankment November 21-22, 2024 during dry conditions. DEP Permit received before work completed. Township worked with the company Land Studies to be sure the project was completed in a timely manner and in compliance with all agencies. PA Fish & Boat Commission approved and DEP approved.	Dam Failure, flood, flash flood.

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Salisbury Township

Strasburg Borough

Hazard Identification and Risk Evaluation Worksheet

Name: STEVEN ECHTERNACH **Title:** BOROUGH MANAGER/EMA

Jurisdiction: STRASBURG BOROUGH **Email:** ECHTERNS@STRASBURGBORO.ORG

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	—	
Earthquake		
Flood, Flash Flood, Ice Jam		
Hailstorms		
Invasive Species		
Pandemic		
Radon Exposure	NC	
Subsidence and Sinkholes		
Tornado and Windstorm		
Wildfire		
Winter Storm	—	
Human-Caused Hazards		
Dam Failure		
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

NO SIGNIFICANT CHANGES FROM LAST REVIEW IN 2018

Mitigation Strategy 5-Year Mitigation Plan Review

Name: STEVEN ECHTERNACH

Title: BOROUGH MANAGER

Jurisdiction: STRASBURG BOROUGH

Email: ECHTERNS@STRASBURGBORO.ORG

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	**Prevent injury/death and damage from natural and human-made hazards in Lancaster County.**	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	**Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.**	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	**Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.**	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	**Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.**	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	**Improve and maintain stormwater management systems to reduce backup and flooding.**	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	**Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.**	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	**Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.**	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goals and Objectives		Comments
Goal 4	**Increase public education and awareness of existing and potential hazards in Lancaster County.**	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	**Educate property owners in hazard risk areas regarding their risks and the precautions they can take.**	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	**Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).**	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal	IMPROVE STORM WATER MANAGEMENT IN HISTORIC DISTRICT.	
Objective	IMPROVE STORM WATER BASED ON 4 QUADRANTS	BASED ON 2006 ARMY COPP STUDY, AND BOROUGH ENGINEER UPDATE 2021
Objective	USE THE ARMY COPP PLAN	
Objective	IMPROVE OVERALL STORM WATER	

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	Review Comments
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.						
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.						
LC-3	Action 3	Elevate structures at risk of flooding.						
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.						
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.						
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.						
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.						
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.						
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.						
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.						

Capability Assessment Survey

Name: STEVEN ECHTERNACHT

Title: BOROUGH MANAGER

Jurisdiction: STRASBURG BOROUGH

Email: ECHTERNS@STRASBURGBORO.ORG

Phone Number: 717-687-7732

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan					
Emergency Operations Plan	X	05/2003		SREMA	
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan					
NFIP					
NFIP – Community Rating System					
Floodplain Regulations					
Floodplain Management Plan					
Zoning Regulations	X	1991			WITH REVISIONS / AMENDMENTS. UNDER REVIEW

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
Subdivision Regulations					
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)					
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance	X				
Natural Resource Protection Plan					
Capital Improvement Plan	X				
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation					
Building Code					
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)				
Planners or engineers (with natural and/or human caused hazards knowledge)	X			
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X			
Emergency Manager	X			
Floodplain Manager				
Land Surveyors				
Scientists or staff familiar with the hazards of the community				
Personnel skilled in GIS and/or FEMA's HAZUS program				
Grant writers or fiscal staff to handle large or complex grants				
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming	X			
Community Development Block Grants (CDBG)				
Special Purpose Taxes				
Gas / Electric Utility Fees				
Water / Sewer Fees	X			
Stormwater Utility Fees				
Development Impact Fees				
General Obligation, Revenue, and/or Special Tax Bonds				
Partnering Arrangements or Intergovernmental Agreements	X			SBA
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification				
StormReady certification				
Natural disaster or safety related school programs				
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)				
Public-private partnership initiatives addressing disaster-related issues				
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.				
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability			
Administrative and Technical Capability			
Financial Capability			
Education and Outreach			

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: STEVEN ECHTERNACH Title: BOROUGH BOROUGH

Jurisdiction: STRASBURG BOROUGH Email: ECHTERN@STRASBURGBORO.ORG

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Y	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	Y	
c. Does the municipality support requests for map updates?	If yes, specify how.	Y	
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	Y	
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	N	
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	Y	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	NO	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.		
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	**If yes, specify the office responsible.**		
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.		
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	**If yes, specify the office responsible.**		
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.		
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • **Participation in the Community Rating System** • **Prohibition of production or storage of chemicals in SFHA** • **Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA** • **Prohibition of certain types of residential housing (manufactured homes) in SFHA** • **Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA**	**If yes, specify activities.**		

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.		

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.		
c. Does the municipality provide general assistance to community members regarding insurance issues?	**If yes, specify how.**		

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	Source of Information	Comments
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	
Is the floodplain management an auxiliary function?	Community FPA	
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	
What are the barriers to running an effective NFIP program in the community?	Community FPA	
Compliance History		
Topic	Source of Information	Comments
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	
Are there any outstanding compliance issues (i.e., current violations)?		
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Strasburg Township

Hazard Identification and Risk Evaluation Worksheet

Name: Tammy L Jamison Title: Secretary

Jurisdiction: Strasburg Township Email: secretary@strasburgtownship.com

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	NC	
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Not Applicable

Capability Assessment Survey

Name: Tammy L Jamison
Title: Secretary
Jurisdiction: Strasburg Township
Email: Secretary@strasburgtownship.com
Phone Number: 717-687-6233

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	X	05/15/2018		County EMA	
Emergency Operations Plan	X	06/03/2003		County EMA	
Disaster Recovery Plan	X	12/10/2022		County EMA	
Evacuation Plan	X	06/03/2003		County EMA	
Continuity of Operations Plan	X			FEMA	
NFIP					
NFIP – Community Rating System					
Floodplain Regulations					
Floodplain Management Plan	X	03/07/2016		Strasburg Township	
Zoning Regulations	X	2002		Township	

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
Subdivision Regulations	X	03/07/2016		Township	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	X	01/04/2016		Township	Strasburg Regional Comprehensive Plan
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance	X	05/05/2014		Township	
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation					
Building Code	X	11/04/2013		Township	
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)		X		
Planners or engineers (with natural and/or human caused hazards knowledge)		X		
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		Township	Township Engineer
Emergency Manager		X		
Floodplain Manager	X		Township	Township Zoning Officer
Land Surveyors		X		
Scientists or staff familiar with the hazards of the community		X		
Personnel skilled in GIS and/or FEMA's HAZUS program		X		
Grant writers or fiscal staff to handle large or complex grants		X		
Other		X		

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming		X		
Community Development Block Grants (CDBG)		X		
Special Purpose Taxes		X		
Gas / Electric Utility Fees		X		
Water / Sewer Fees		X		
Stormwater Utility Fees		X		
Development Impact Fees		X		
General Obligation, Revenue, and/or Special Tax Bonds		X		
Partnering Arrangements or Intergovernmental Agreements		X		
Other		X		

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification		X		
Natural disaster or safety related school programs		X		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)		X		
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		X		
Other		X		

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability	X		
Administrative and Technical Capability	X		
Financial Capability	X		
Education and Outreach	X		

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Tammy L Jamison
Title: Secretary
Jurisdiction: Strasburg Township
Email: secretary@strasburgtownship.com

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	**Prevent injury/death and damage from natural and human-made hazards in Lancaster County.**	No Changes
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	**Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.**	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	**Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.**	No Changes
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	**Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.**	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	**Improve and maintain stormwater management systems to reduce backup and flooding.**	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	**Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.**	No Changes
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	**Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.**	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goals and Objectives		Comments
Goal 4	**Increase public education and awareness of existing and potential hazards in Lancaster County.**	No Changes
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	**Educate property owners in hazard risk areas regarding their risks and the precautions they can take.**	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	**Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).**	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	Review Comments
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.			X			
LC-3	Action 3	Elevate structures at risk of flooding.	X					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	X					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	X					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	X					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	X					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	X					
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.	X					
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.			X			

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Tammy L Jamison **Title:** Secretary

Jurisdiction: Strasburg Township **Email:** secretary@strasburgtownship.com

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Yes	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	Yes	
c. Does the municipality support requests for map updates?	If yes, specify how.	Yes	Aides residents with understanding process
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	NA	
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	Yes	Communication with residents
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	yes	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	yes	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	Yes	Zoning office
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	Yes	Zoning office
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Yes	Zoning office
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	Yes	Zoning office
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	Yes	Via notices of violations issued by zoning office
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	Yes	All listed except crs

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	Yes	website

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	Yes	USPS mailing
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	No	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	no
Is the floodplain management an auxiliary function?	Community FPA	no
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Zoning officer verifies compliance with all building and zoning permit issues
What are the barriers to running an effective NFIP program in the community?	Community FPA	none
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	yes
Are there any outstanding compliance issues (i.e., current violations)?		no
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	Both
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	Meet FEMA requirements via DCED/FEMA template with zoning ordinance amendment
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	Zoning officer reviews all zoning/building permits for compliane
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	Unknown
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	Unknown
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	unknown
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	Unknown
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	Unknown
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Terre Hill Borough

Upper Leacock Township

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Nelson Dagen **Title:** Emergency Management Coordinator

Jurisdiction: Upper Leacock Township **Email:** EMC@ultwp.com

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	YES	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	YES	
c. Does the municipality support requests for map updates?	If yes, specify how.	YES	
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	YES	If updated
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	YES	Direct to FEMA Webiste
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	YES	None in recent past – record would be maintained

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.		

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	YES	Zoning/Planning
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	YES	Zoning/Planning
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	YES	Zoning/Planning/NPDES review
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	YES	Zoning/Planning
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	YES	Zoning/Planning
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	NO	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	NO	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	YES	If a change to flood map was implement by FEMA
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	NO	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	No
Is the floodplain management an auxiliary function?	Community FPA	YES
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Permit review
What are the barriers to running an effective NFIP program in the community?	Community FPA	NONE
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	YES
Are there any outstanding compliance issues (i.e., current violations)?		NO
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		NO
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	Both
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	YES – meets requirements
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	Application submittal, staff review, education of permittee of issues
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	Info requested from FEMA. Will forward when received.
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	Info requested from FEMA. Will forward when received.
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	Info requested from FEMA. Will forward when received.
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	Info requested from FEMA. Will forward when received.
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	NO
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Nelson Dagen

Title: Emergency Management Coordinator

Jurisdiction: Upper Leacock Twp

Email: EMC@ultwp.com

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

	Goals and Objectives	Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	Ongoing evaluation of existing governmental control and adjusting regulations as needed.
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	Ongoing evaluation of existing governmental control and adjusting regulations as needed.
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	Existing township-wide emergency service committee.
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	Educate people through ongoing public postings and community events.
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.	X					
LC-3	Action 3	Elevate structures at risk of flooding.				X		
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	X					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.			X			
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	X					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	X					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.			X			
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.		X				
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local			X			

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
		regulations to protect new structures constructed in hazard-prone areas.						
ULT-1	Action 11	Install drainage ditches along Creek Hill Road at Hartman Station Road to reduce soil runoff onto the roadway.					X	

Capability Assessment Survey

Name: Nelson Dagen

Title: Emergency Management Coordinator

Jurisdiction: Upper Leacock Township

Email: EMC@ultwp.com

Phone Number: 717.951.8621

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan					
Emergency Operations Plan	**X**				
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan					
NFIP	**X**				
NFIP – Community Rating System					
Floodplain Regulations	**X**	**2017**			
Floodplain Management Plan	**X**	**2017**			
Zoning Regulations	**X**	**2015**			

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
Subdivision Regulations	X				
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	X				
Open Space Management Plan (or Parks/Rec or Greenways Plan)	X				
Stormwater Management Plan / Ordinance	X				
Natural Resource Protection Plan	X				
Capital Improvement Plan	X				
Economic Development Plan	X				
Historic Preservation Plan		X			
Farmland Preservation	X				
Building Code	X				
Fire Code	X				**2018 IBC**
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X			Contractor
Planners or engineers (with natural and/or human caused hazards knowledge)	X			Contractor
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X			Contractor
Emergency Manager	X			
Floodplain Manager	X			
Land Surveyors	X			Contractor
Scientists or staff familiar with the hazards of the community	X			
Personnel skilled in GIS and/or FEMA's HAZUS program	X			No FEMA HAZUS
Grant writers or fiscal staff to handle large or complex grants	X			
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming	X			
Community Development Block Grants (CDBG)		X		
Special Purpose Taxes		X		
Gas / Electric Utility Fees		X		
Water / Sewer Fees	X			
Stormwater Utility Fees	X			
Development Impact Fees	X			
General Obligation, Revenue, and/or Special Tax Bonds		X		
Partnering Arrangements or Intergovernmental Agreements	X		East Lampeter Police	
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification	X		County EMA	
Natural disaster or safety related school programs	X		East Lampeter Police	School Resource Officer
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	X			
Public-private partnership initiatives addressing disaster-related issues	X			
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	X			
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability			X
Administrative and Technical Capability			X
Financial Capability			X
Education and Outreach		X	

Hazard Identification and Risk Evaluation Worksheet

Name: Nelson Dagen **Title:** Emergency Management Coordinator

Jurisdiction: Upper Leacock Township **Email:** EMC@ultwp.com

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	I	Increased storm frequency
Hailstorms	NC	
Invasive Species	I	Increased frequency of certain species
Pandemic	I	
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	I	More extremes in weather
Wildfire	NC	
Winter Storm	D	Winter weather has been less impactful
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- X Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- X Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- X Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- X Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- X Urban Fire/Explosion

Additional Comments:

Warwick Township

Hazard Identification and Risk Evaluation Worksheet

Name: Duane Ober **Title:** Emergency Mgt. Coordinator

Jurisdiction: Warwick Township - 2024 **Email:** dober@warwicktownship.org

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	**NC**	
Earthquake	**NC**	
Flood, Flash Flood, Ice Jam	**I**	**Heavy rains overflow stream banks and / or create standing water on roadways, closing roads**
Hailstorms	**NC**	
Invasive Species	**NC**	
Pandemic	**I**	**COVID-related issues, planning for future risks**
Radon Exposure	**NC**	
Subsidence and Sinkholes	**I**	**Still a local concern because of geology**
Tornado and Windstorm	**I**	**Windstorms are becoming more frequent, causing downed power lines and trees on roadways**
Wildfire	**NC**	
Winter Storm	**D**	**Winters have been milder in recent years, but still need to be prepared**
Human-Caused Hazards		
Dam Failure	**NC**	
Environmental Hazards (Hazmat)	**NC**	

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Nuclear Incidents	**NC**	
Transportation Accidents	**I**	**Some intersections continue to be areas of concern; need to monitor**
Utility Interruption	**NC**	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion - NO
- ☐ Extreme Temperature - NO
- ■ Hurricane, Tropical Storm, Nor'easter - YES
- ☐ Landslide - NO
- ■ Lightning Strike - YES

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ■ Environmental Hazards – Gas and Liquid Pipelines **(Increase in natural gas repairs and installation in the region)**
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Capability Assessment Survey

Name: Duane Ober **Title:** Emergency Management Coordinator

Jurisdiction: Warwick Township **Email:** dober@warwicktownship.org

Phone Number: (717) 224-0114

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**X**	**1/16/19**		**County EMA**	**Under review in 2024**
Emergency Operations Plan	**X**	**2/5/2020**		**Warwick Twp. EMA**	**Under review now, to be updated in 2024**
Disaster Recovery Plan					**No plan**
Evacuation Plan					**No plan**
Continuity of Operations Plan			**X**		**Under review**
NFIP	**X**	**2016**		**FEMA**	**New maps developed by FEMA**
NFIP – Community Rating System	**X**	**2016**		**FEMA**	**New maps developed by FEMA**
Floodplain Regulations	**X**	**2016**		**Township Supervisors**	
Floodplain Management Plan	**X**	**2021**		**Lititz Run Watershed Alliance**	**Lititz Run Watershed Action Plan – stream restoration and flood mitigation efforts**

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
Zoning Regulations	X	2016		Township Supervisors	
Subdivision Regulations	X	2015		Township Supervisors	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	X	2018	X	Regional effort	5-year strategic plan (Strengthening Community 2030) will be adopted in 2024
Open Space Management Plan (or Parks/Rec or Greenways Plan)	X	2010			
Stormwater Management Plan / Ordinance	X	2014			
Natural Resource Protection Plan	X	2018			Included in Forge the Future 2022 Comp Plan
Capital Improvement Plan	X	2020	X		Capital Improvement Plans for fire, police, public works, etc. continually being analyzed
Economic Development Plan	X	2018			Included in Forge the Future 2022 Comp Plan
Historic Preservation Plan	X	2018			Included in Forge the Future 2022 Comp Plan
Farmland Preservation	X	2018			Included in Forge the Future 2022 Comp Plan
Building Code	X	2018			Follow the state building code
Fire Code	X				
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	**X**		**Warwick Township Planner**	
Planners or engineers (with natural and/or human caused hazards knowledge)	**X**		**ELA Group**	**Subcontracted**
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	**X**		**ELA Group, Entech**	**Subcontracted**
Emergency Manager	**X**		**Warwick Township EMA**	
Floodplain Manager	**X**		**Warwick Twp. Zoning Officer**	
Land Surveyors	**X**		**Diehm and Sons**	**Subcontracted**
Scientists or staff familiar with the hazards of the community	**X**		**Landstudies**	
Personnel skilled in GIS and/or FEMA's HAZUS program	**X**		**Assistant Township Secretary**	
Grant writers or fiscal staff to handle large or complex grants	**X**		**Township Manager**	
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming	X		Township Staff	
Community Development Block Grants (CDBG)	X		Township Staff	
Special Purpose Taxes		X		
Gas / Electric Utility Fees		X		
Water / Sewer Fees	X		Warwick Twp. Municipal Authority Staff	
Stormwater Utility Fees	X			During plan submission
Development Impact Fees	X			During plan submission
General Obligation, Revenue, and/or Special Tax Bonds		X		Could issue a bond, if needed
Partnering Arrangements or Intergovernmental Agreements	X		Warwick Emergency Services Commission (WESC); Northern Lancaster County Regional Police Commission (NLCRPC); Warwick Regional Recreation Commission (WRRC); Lititz Run Watershed Alliance (LRWA)	WESC is regional effort with Lititz Borough and Elizabeth Township; NLCRPC is regional effort with Penn Twp., Clay Twp., and East Petersburg Borough
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		**X**		**N/A**
StormReady certification	**X**		**Lancaster County EMA (LEMA)**	
Natural disaster or safety related school programs		**X**		**Led by Warwick School District**
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	**X**		**Warwick Emergency Services Commission (WESC)**	**Community safety education and training**
Public-private partnership initiatives addressing disaster-related issues		**X**		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	**X**		**Warwick Emergency Services Commission; local fire companies and ambulance agencies; Lititz Regional Water Authority; Lititz Run Watershed Alliance; Warwick HUB**	**Safety plans, church safety plans, annual environmental clean-up days, social services**
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability			X
Administrative and Technical Capability			X
Financial Capability			X
Education and Outreach			X

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Duane Ober **Title:** Emergency Management Coordinator

Jurisdiction: Warwick Township **Email:** dober@warwicktownship.org

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	**YES**	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	**YES**	**3/16/2016 – Ordinance 275**
c. Does the municipality support requests for map updates?	If yes, specify how.	**YES**	**Through the subdivision and land development process.**
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	**NO**	
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	**NO**	
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	**YES**	**Administration office**

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	**YES**	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	**YES**	**Planning Department**
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	**YES**	**Planning Department**
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	**YES**	**Planning Department**
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	**YES**	**Planning Department**
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	**YES**	**Planning Department**
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • **Prohibition of production or storage of chemicals in SFHA** • **Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA** • **Prohibition of certain types of residential housing (manufactured homes) in SFHA** • **Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA**	If yes, specify activities.		**Ordinance 275 Zoning Ordinance – Floodplain Zone 340.22(e)**

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	**NO**	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	**NO**	
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	**NO**	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	**NO**
Is the floodplain management an auxiliary function?	Community FPA	**NO**
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	**N/A**
What are the barriers to running an effective NFIP program in the community?	Community FPA	**N/A**
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	**YES**
Are there any outstanding compliance issues (i.e., current violations)?		**NO**
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book - **N/A**

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	**BOTH**
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	**YES**
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	**N/A**
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	**N/A**
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	**N/A**
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	**N/A**
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	**N/A**
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	**N/A**
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	**N/A**
What categories and activities provide CRS points and how can the class be improved?		**N/A**
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	**N/A**

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Duane Ober

Title: Emergency Management Coordinator

Jurisdiction: Warwick Twp - 2024

Email: dober@warwicktownship.org

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	**Led / influenced by FEMA and local zoning requirements, including Warwick Township Urban Growth Boundary.**
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	**Relocated Pump Station #13 to higher ground, out of flood-prone location. Also, continuing to implement floodplain improvement projects as well as stream restoration projects.**
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	**Mission and directive of Warwick Emergency Services Commission (WESC), a regional function of Warwick Township, Lititz Borough, and Elizabeth Township**
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	**Objectives being handled by WESC, Warwick Township office staff, and Warwick Township Municipal Authority staff, through public outreach, including in-person activities, newsletters, social media, website, etc.**
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal	**Warwick Township – install battery back-up for all traffic lights (where possible)**	
Objective	Evaluate traffic signals that are set-up to have battery back-up	
Objective	Determine costs associated with updating current lights to allow for battery back-up connections (LED upgrades?)	
Objective	Seek and apply for grants to assist with funding for this project.	

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.	X					
LC-3	Action 3	Elevate structures at risk of flooding.				X		***WTMA Pump Station #13***
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	X					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	X					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	X					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	X					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.		X				
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.		X				

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.			X			
WarT-1	Action 11	Protect Wastewater Pump #67 to the 0.2% annual chance flood level.		X				***Have completed floodplain mitigation projects, as well as stream improvement projects to reduce the impact of severe storm events***
WarT-2	Action 12	Protect Well #35 to the 0.2% annual chance flood level.		X				
WarT-3	Action 13	Replace the Lititz Run culvert under Lititz Run Road with one with a larger opening.		X				***Lining existing pipes for better flow of water through the pipes (not replacing the culvert).***

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com) by Friday, November 15

Jurisdiction: Warwick Township

Name/Title of Individual Completing Worksheet: Duane Ober, Emergency Mgt. Coordinator

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Yes	
Dam Failure	Low	No - Medium	If Speedwell Lake Dam fails, flooding downstream impacts our township
Drought	Medium	Yes	
Earthquake	Low	Yes	
Environmental Hazards: Gas and Pipeline	Medium	Yes	
Environmental Hazards: Hazardous Materials	Medium	Yes	
Flood, Flash Flood, Ice Jam	High	Yes	
Hailstorm	Medium	Yes	
Invasive Species	Medium	Yes	
Nuclear Incident	Medium	No - Low	Believe we're outside impacted area
Pandemic and Infectious Disease	Medium	Yes	
Radon Exposure	High	Yes	
Subsidence, Sinkhole	High	Yes	
Substance Use Disorder and Mental Health	Medium	Yes	
Terrorism	Medium	Yes	
Tornado, Windstorm	Medium	Yes	
Transportation Accident	High	Yes	
Utility Interruption	High	Yes	
Wildfire	Medium	Yes	
Winter Storm	Medium	Yes	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Lititz Borough and Warwick Township

Name/Title of Individual Completing Worksheet: Duane Ober, EMC

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

**** These are mitigation actions that COULD be implemented, either at the municipal level or at the county level. These are ideas for action, not necessarily actions being taken at our municipal level. ****

Cyber Incidents: ***Action Plan***: Implement a municipal cybersecurity training program for staff and secure funding to upgrade cybersecurity infrastructure. Partner with state agencies and private cybersecurity firms for audits and workshops.

Dam Failure: ***Action Plan***: Collaborate with neighboring municipalities to evaluate regional dam safety and identify shared risks. Apply for state and federal grants to support infrastructure upgrades if applicable in surrounding areas.

Drought: ***Action Plan***: Expand drought resilience by investing in additional water storage facilities and implementing rainwater harvesting projects. Conduct public campaigns to promote water conservation practices.

Earthquake: ***Action Plan****:* Conduct a seismic risk assessment for critical infrastructure and prioritize retrofitting projects. Launch community-wide earthquake preparedness drills in collaboration with local emergency management teams.

Gas and Liquid Pipelines: ***Action Plan****:* Establish a pipeline safety task force in coordination with UGI to ensure regular assessments and response planning. Conduct joint training sessions for first responders and pipeline operators.

Hazardous Materials Releases: ***Action Plan****:* Develop a regional hazardous materials response framework that includes shared resources and training programs. Seek grants for specialized equipment and secure contracts for hazardous waste disposal.

Flood/Flash Flood/Ice Jams: ***Action Plan****:* Enhance stormwater infrastructure with green solutions like permeable pavements and retention basins. Expand public outreach on the benefits of flood insurance and preparedness measures.

Hailstorms: ***Action Plan****:* Create a grant or rebate program to help homeowners invest in hail-resistant building materials. Develop a public awareness campaign on how to protect property during hailstorms.

Invasive Species: ***Action Plan****:* Form regional partnerships to monitor and combat invasive species. Apply for environmental grants to fund eradication programs and conduct community workshops on invasive species identification and prevention.

Nuclear Incidents: ***Action Plan****:* Upgrade radiation monitoring systems and strengthen public education efforts on nuclear safety. Conduct regular evacuation drills in collaboration with neighboring jurisdictions.

Pandemic and Infectious Disease: ***Action Plan****:* Establish a local stockpile of medical supplies and PPE. Develop partnerships with regional health providers for resource sharing and expand public health surveillance systems to detect outbreaks early.

Radon Exposure: ***Action Plan****:* Offer discounted radon testing kits to residents and provide financial assistance for mitigation system installations in high-risk homes. Collaborate with state agencies to raise awareness.

Subsidence/Sinkholes: ***Action Plan****:* Invest in advanced ground monitoring technology to detect potential sinkholes. Develop zoning regulations to minimize construction in high-risk areas and conduct educational sessions for affected communities.

Substance Use Disorder: ***Action Plan****:* Secure federal funding to expand addiction recovery programs and implement a stigma-reduction campaign. Increase the availability of support groups and treatment centers in the community.

Terrorism: ***Action Plan****:* Conduct joint counter-terrorism training sessions with local, state, and federal agencies. Implement a public awareness campaign encouraging the community to report suspicious activities.

Tornado/Windstorm: ***Action Plan****:* Build storm shelters in vulnerable areas and provide financial incentives for constructing storm-resistant buildings. Expand community education on tornado safety protocols.

Transportation Accidents: ***Action Plan****:* Upgrade traffic control systems in high-risk areas and install additional signage. Implement public campaigns on safe driving practices, particularly near accident-prone locations.

Utility Interruption: ***Action Plan****:* Modernize grid infrastructure to improve reliability and promote renewable energy sources. Partner with utility companies to secure funding for battery storage solutions and backup power systems.

Wildfire: ***Action Plan****:* Develop firebreaks in at-risk areas and organize public workshops on wildfire prevention and safety. Seek funding for advanced firefighting equipment and training programs.

Winter Storm: ***Action Plan****:* Establish public-private partnerships to improve snow removal capabilities and expand community education on winter preparedness. Invest in new equipment for snow clearing and de-icing operations.

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
None identified		

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Backup power at water treatment plant and wastewater treatment plant	Evaluate condition of backup power supplies and plan for upgrades or replacements	

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Identify high risk areas	Evaluate and monitor conditions during heavy rain conditions	

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
None identified		

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
None identified		

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed
None identified		

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Education about use of Regroup	Promotion of how and why to register for Regroup	Emergency communication with community

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed
None Identified		

West Cocalico Township

Hazard Identification and Risk Evaluation Worksheet

Name: Cardyn Hildebrand **Title:** Manager

Jurisdiction: W Cocalico Twp Authority **Email:** wcocalico@gmail.com

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	I	Covid
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☒ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☒ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Depending on storm track, a hurricane or nor'easter could be impactful

Several pipelines cross Authority service area

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Carolyn Hildebrand Title: Manager

Jurisdiction: W Cocalico Twp Authority Email: wcocalico@gmail.com

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

	Goals and Objectives	Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	Moved WWTF to higher ground out of floodplain
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goals and Objectives		Comments
Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	Review Comments
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	✓					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.		✓				
LC-3	Action 3	Elevate structures at risk of flooding.		✓				
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	✓					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	✓					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	✓					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	✓					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	✓					
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.	✓					
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.			✓			

Capability Assessment Survey

Name: Carolyn Hildebrand

Title: Manager

Jurisdiction: W Cocalico Twp Authority

Email: wcocalico@gmail.com

Phone Number: 717-336-8720

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy, completed one action.
Hazard Mitigation Plan					
Emergency Operations Plan					
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan					
NFIP					
NFIP – Community Rating System					
Floodplain Regulations					
Floodplain Management Plan					
Zoning Regulations					

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Subdivision Regulations					
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)					
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance					
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation					
Building Code					
Fire Code					
Other	✓			W Cocalico Twp	Follow plans which W Cocalico Twp has in place

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)		X		
Planners or engineers (with natural and/or human caused hazards knowledge)	X		Becker Engineering	as consultant
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		Becker Engineering	as consultant
Emergency Manager	X		Carolyn Hildebrand	
Floodplain Manager	X		Carolyn Hildebrand	
Land Surveyors		X		
Scientists or staff familiar with the hazards of the community	X		Carolyn Hildebrand Kent Reich/Nick Reich	
Personnel skilled in GIS and/or FEMA's HAZUS program	X		Becker Engineering	as consultant
Grant writers or fiscal staff to handle large or complex grants		X		
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming		X		
Community Development Block Grants (CDBG)		X		
Special Purpose Taxes		X		
Gas / Electric Utility Fees		X		
Water / Sewer Fees	X		W Cocalico Twp Authority	
Stormwater Utility Fees		X		
Development Impact Fees		X		
General Obligation, Revenue, and/or Special Tax Bonds		X		
Partnering Arrangements or Intergovernmental Agreements		X		
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification		X		
Natural disaster or safety related school programs		X		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)		X		
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		X		
Other		X		

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability	X		
Administrative and Technical Capability		X	
Financial Capability	X		
Education and Outreach	X		

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Carolyn Hildebrand **Title:** Manager

Jurisdiction: West Cocalico Township **Email:** wcocalico@gmail.com

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Yes	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	Yes	Unknown
c. Does the municipality support requests for map updates?	If yes, specify how.	Yes	
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	No	Not while I have worked here
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	Yes	If requested
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	Yes	Township

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	Yes	

2. FLOODPLAIN MANAGEMENT Requirement	Recommended Action	Yes/No	Comments
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	No	No development permitted in SFHA
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	Yes	Zoning Officer
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Yes	Zoning Officer
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	No	
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	Yes	Work with residents to remain in compliance
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	Yes	No new structures in SFHA

3. FLOOD INSURANCE Requirement	Recommended Action	Yes/No	Comments
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	Yes	Published on website

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	Yes	Provide access to maps. Send letters to homeowners affected by changes
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	Yes	Provide access to maps & give contact info

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	No
Is the floodplain management an auxiliary function?	Community FPA	Yes
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Permit Review
What are the barriers to running an effective NFIP program in the community?	Community FPA	Limited Resources
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	Yes
Are there any outstanding compliance issues (i.e., current violations)?		No
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book Never

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	Paper
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	Yes
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	Zoning officer reviews maps to determine if they can build or not
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	I don't know
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	Unknown
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	Unknown but limited
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	Unknown
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	No
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

West Donegal Township

Hazard Identification and Risk Evaluation Worksheet

Name: Curtis Thompson Title: EMC

Jurisdiction: Elizabethtown Boro Email: cjthompson@etownareaema.org
Mount Joy Township
West Donegal Township

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	I	Agriculture & wildfire Water supply
Earthquake	NC	
Flood, Flash Flood, Ice Jam	I	Will check with Boro/Twp managers
Hailstorms	NC	
Invasive Species	I	Spotted Lantern Flies Emerald Ash Borer
Pandemic	I	congregate care; supply chain consistency in procedure, Avian Flu
Radon Exposure	NC	Testing/Removal
Subsidence and Sinkholes	NC	Region is geologically vulnerable
Tornado and Windstorm	I	increasing frequency property damage, life safety.
Wildfire	I	Weather window is increasing
Winter Storm	I	Drifted Roads, Flooding at warmer times (riverine)
Human-Caused Hazards		
Dam Failure	[redacted] NC	
Environmental Hazards (Hazmat)	I	Industrial premises SARA sites, over the road, Rail
Nuclear Incidents	D	TMI Decomissioned
Transportation Accidents	NC	
Utility Interruption	NC	Water impact from Drought Long term care facilities generators

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Capability Assessment Survey

Name: John Yoder **Title:** Township Manager

Jurisdiction: West Donegal Township **Email:** jyoder@wdtwp.com

Phone Number:

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	X			County EMA	
Emergency Operations Plan			X	Local EMA	
Disaster Recovery Plan			X	Local EMA	
Evacuation Plan			X	Local EMA	
Continuity of Operations Plan			X	Local EMA	
NFIP					
NFIP – Community Rating System					
Floodplain Regulations	X			Township	
Floodplain Management Plan	X			Township	
Zoning Regulations	X			Township	

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
Subdivision Regulations	X				
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	X				
Open Space Management Plan (or Parks/Rec or Greenways Plan)	X				
Stormwater Management Plan / Ordinance	X				
Natural Resource Protection Plan			X		
Capital Improvement Plan			X		
Economic Development Plan			X		
Historic Preservation Plan			X		
Farmland Preservation	-				In conjunction with county Ag board
Building Code	X				
Fire Code	X				
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X			
Planners or engineers (with natural and/or human caused hazards knowledge)		X		
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X			
Emergency Manager	X			
Floodplain Manager	X			
Land Surveyors		X		
Scientists or staff familiar with the hazards of the community		X		
Personnel skilled in GIS and/or FEMA's HAZUS program	X			
Grant writers or fiscal staff to handle large or complex grants		X		
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming	X			Township Supervisor
Community Development Block Grants (CDBG)		X		
Special Purpose Taxes	X			Percentage of property tax goes to Fire and EMS
Gas / Electric Utility Fees		X		
Water / Sewer Fees		X		Covered by authority.
Stormwater Utility Fees		X		
Development Impact Fees		X		
General Obligation, Revenue, and/or Special Tax Bonds		X		
Partnering Arrangements or Intergovernmental Agreements	X			MESA, EWA, ERSA
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification		X		
Natural disaster or safety related school programs		X		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	X			Responsible Water Use Environmental Education
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		X		
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability		X	
Administrative and Technical Capability	X		
Financial Capability	X		
Education and Outreach	X		

Mitigation Strategy 5-Year Mitigation Plan Review

Name: John Yoder

Title: Township Manager

Jurisdiction: West Donegal Township

Email: jyoder@wdtwp.com

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	No comments at this time.
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	No comments at this time.
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	No comments at this time.
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goals and Objectives		Comments
Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	No comments at this time
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	✓					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.	✓					
LC-3	Action 3	Elevate structures at risk of flooding.	✓					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	✓					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	✓					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	✓					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	✓					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	✓					
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.	✓					
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.		✓				

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: John Yoder Title: Township Manager

Jurisdiction: West Donegal Township Email: jyoder@wdtwp.com

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Yes	
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	Yes	
c. Does the municipality support requests for map updates?	If yes, specify how.	Yes	
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	N/A	
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	Yes	
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	Yes	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	Yes	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	Yes	
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	Yes	
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Yes	
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	Yes	
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	Yes	
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	NO	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	No	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	No	
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	No	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	
Is the floodplain management an auxiliary function?	Community FPA	
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	
What are the barriers to running an effective NFIP program in the community?	Community FPA	
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	
Are there any outstanding compliance issues (i.e., current violations)?		
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com)

Jurisdiction: WEST DONEGAL TWP

Name/Title of Individual Completing Worksheet: John Yoder Twp MANAGER

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	YES	
Dam Failure	Low	YES	
Drought	Medium	YES	
Earthquake	Low	YES	
Environmental Hazards: Gas and Pipeline	Medium	YES	
Environmental Hazards: Hazardous Materials	Medium	YES	
Flood, Flash Flood, Ice Jam	High	YES	
Hailstorm	Medium	YES	
Invasive Species	Medium	YES	
Nuclear Incident	Medium	YES	
Pandemic and Infectious Disease	Medium	YES	
Radon Exposure	High	YES	
Subsidence, Sinkhole	High	YES	
Substance Use Disorder and Mental Health	Medium	YES	
Terrorism	Medium	YES	
Tornado, Windstorm	Medium	YES	
Transportation Accident	High	YES	
Utility Interruption	High	YES	
Wildfire	Medium	YES	
Winter Storm	Medium	YES	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: WEST DONEGAL twp

Name/Title of Individual Completing Worksheet: JOHN YODER twp MANAGER

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
NONE @ THIS TIME		

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
NONE @ THIS TIME		

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
MILLER ROAD CULVERT NEAR EDSA PUMPING STATION	REPLACEMENT	NOT AT THIS TIME

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
NONE @ THIS TIME		

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
NONE @ THIS T/ME		

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed
NONE @ THIS TIME		

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
NONE @ THIS TIME		

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed
NONE @ THIS TIME		

West Earl Township

Hazard Identification and Risk Evaluation Worksheet

Name: Jenna Reigle **Title:** Township Manager

Jurisdiction: West Earl Township **Email:** manager@westearltwp.org

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	NC	
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- X Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- X Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Capability Assessment Survey

Name: Jenna Reigle **Title:** Township Manager

Jurisdiction: West Earl Township **Email:** manager@westearltwp.org

Phone Number: 717-859-3201

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**x**				
Emergency Operations Plan					
Disaster Recovery Plan					
Evacuation Plan					
Continuity of Operations Plan					
NFIP					
NFIP – Community Rating System					
Floodplain Regulations	**X**	**3/14/2016**			
Floodplain Management Plan	**X**	**3/14/2016**			
Zoning Regulations	**X**	**11/3/1970**			**Originally adopted in 1970 & has been updated**

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Subdivision Regulations	x	8/6/1974			Originally adopted in 1974 & has been updated
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	x				
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance	x	6/9/2014			
Natural Resource Protection Plan					
Capital Improvement Plan	x				
Economic Development Plan	x				
Historic Preservation Plan					
Farmland Preservation	x				Lancaster County Ag Preserve
Building Code	x	6/14/2004			PA UCC
Fire Code	x	6/14/2004			PA UCC
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	x		Lancaster Civil Engineering	
Planners or engineers (with natural and/or human caused hazards knowledge)	x		Lancaster Civil Engineering	
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	x		Lancaster Civil Engineering	
Emergency Manager	x		Bill Howard	
Floodplain Manager	X		Sara Service	
Land Surveyors	x		Lancaster Civil Engineering	
Scientists or staff familiar with the hazards of the community	X		Staff	
Personnel skilled in GIS and/or FEMA's HAZUS program	x		Staff & Lancaster Civil Engineering	
Grant writers or fiscal staff to handle large or complex grants	x		Staff & Lancaster Civil Engineering	
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming		x		
Community Development Block Grants (CDBG)	x		DCNR	
Special Purpose Taxes	x		LCTCB	LST Tax Funds and Fire Tax
Gas / Electric Utility Fees		x		
Water / Sewer Fees	x		LASA West Earl Water Authority	
Stormwater Utility Fees		x		
Development Impact Fees		x		
General Obligation, Revenue, and/or Special Tax Bonds		x		
Partnering Arrangements or Intergovernmental Agreements	x			
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification				Unknown
StormReady certification	X		COUNTY EMA	
Natural disaster or safety related school programs	x			
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	x			
Public-private partnership initiatives addressing disaster-related issues	x			
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	x			
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability		x	
Administrative and Technical Capability		x	
Financial Capability		x	
Education and Outreach		x	

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Jenna Reigle | Title: Township Manager

Jurisdiction: West Earl Township | Email: manager@westearltwp.org

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goals and Objectives		Comments
Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	x					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.	x					
LC-3	Action 3	Elevate structures at risk of flooding.	x					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	x					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	x					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.				x		
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	x					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	x					
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.	X					
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.			x			

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Sara Service **Title:** Zoning Officer

Jurisdiction: West Earl Township **Email:** sservice@westearltwp.org

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Yes & No	We have copies of the 2016 FIRM maps on file available to view and copies of the 2016 FIS. We do not have digital copies of maps but do refer residents to the FEMA website to view maps.
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	Yes	Adopted March 14, 2016.
c. Does the municipality support requests for map updates?	If yes, specify how.	N/A	Have never received a request but would support if we did.
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	N/A	Has not happened but would share if it did.
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	Yes	Township Engineer
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	N/A	Zoning Officer would be responsible if we ever received such records. We have not received any records like this that I'm aware of.

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.		

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	Yes	Zoning/building and Township Engineer
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	Yes	Zoning/building and Township Engineer
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Yes	Zoning/building
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	N/A	Zoning Officer would maintain these records if we receive them.
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	Yes	The municipality enforces the floodplain ordinance.
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	No	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	No	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	No	
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	No	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	No
Is the floodplain management an auxiliary function?	Community FPA	Yes
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Zoning and building permit review, Engineer's review.
What are the barriers to running an effective NFIP program in the community?	Community FPA	Dealing with floodplain regulations too infrequently which is a barrier to becoming more knowledgeable in the field.
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	Yes
Are there any outstanding compliance issues (i.e., current violations)?		No
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	Paper
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	Meet
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	Permit submitted by applicant. Reviewed by zoning officer, building code official, and Township Engineer.
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	Unknown
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	Unknown
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	Unknown
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	Unknown
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	Unknown
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	Unknown
What categories and activities provide CRS points and how can the class be improved?		Unknown
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	Unknown

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com)

Jurisdiction: West Earl Township

Name/Title of Individual Completing Worksheet: Howard, EMC

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Same	They happen to other agencies
Dam Failure	Low	Same	None
Drought	Medium	Same	Lack of precip
Earthquake	Low	Same	
Environmental Hazards: Gas and Pipeline	Medium	Same	
Environmental Hazards: Hazardous Materials	Medium	Same	
Flood, Flash Flood, Ice Jam	High	Same	
Hailstorm	Medium	Same	
Invasive Species	Medium	Same	
Nuclear Incident	Medium	Low	Not in 10 mile
Pandemic and Infectious Disease	Medium	Same	
Radon Exposure	High	Same	
Subsidence, Sinkhole	High	Same	
Substance Use Disorder and Mental Health	Medium	Same	
Terrorism	Medium	Same	
Tornado, Windstorm	Medium	Same	
Transportation Accident	High	Same	
Utility Interruption	High	Same	
Wildfire	Medium	Same	
Winter Storm	Medium	Same	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: West Earl Township

Name/Title of Individual Completing Worksheet: Howard, EMC

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Lack of back up Admin Building	Find a suitable location or have a plan to work remotely.	Cyber Incidents, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
NA		

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Trailer park located in a flood zone	Dig out downstream from the trailer park or buy the property where the trailer park is located	Flood

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Winter Storm and road conditions	Have PW treat rodways before and plow snow during and after	Winter Storm

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Flooding at a trailer park	Buy the property and have the residents relocated	Flood

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
NA		

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed
NA		

West Hempfield Township

Hazard Identification and Risk Evaluation Worksheet

Name: Nick Oakes **Title:** Emergency Management Coordinator

Jurisdiction: West Hempfield Township **Email:** ffoakes@gmail.com

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	Large number of well sites for water supply in WHT.
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	NC	Pandemic plan developed and executed during COVID-19 pandemic after last update.
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Capability Assessment Survey

Name: Nick Oakes **Title:** Emergency Management Coordinator

Jurisdiction: West Hempfield Township **Email:** ffoakes@gmail.com

Phone Number: 215-609-6908

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**X**			**LEMA**	
Emergency Operations Plan	**X**	**1/1/2020**		**WHT EMA**	
Disaster Recovery Plan	**X**	**1/1/2020**		**WHT EMA**	
Evacuation Plan	**X**	**1/1/2020**		**WHT EMA**	
Continuity of Operations Plan	**X**	**1/1/2020**		**WHT EMA**	
NFIP	**X**			**Federal**	
NFIP – Community Rating System	**X**			**Federal**	
Floodplain Regulations	**X**			**WHT**	
Floodplain Management Plan	**X**			**WHT**	
Zoning Regulations	**X**			**WHT**	

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Subdivision Regulations	X			WHT	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	X			WHT	
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance	X			WHT	
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation	X			WHT	
Building Code	X			WHT	
Fire Code	X			WHT	
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X		WHT	
Planners or engineers (with natural and/or human caused hazards knowledge)	X		WHT	
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		Rettew	
Emergency Manager	X		WHT EMA	Started 6/27/2024
Floodplain Manager	X		WHT	
Land Surveyors		X		
Scientists or staff familiar with the hazards of the community	X		WHT/WHT EMA	
Personnel skilled in GIS and/or FEMA's HAZUS program	X		WHT	
Grant writers or fiscal staff to handle large or complex grants		X		
Other		X		

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming	X		WHT	
Community Development Block Grants (CDBG)		X		
Special Purpose Taxes		X		
Gas / Electric Utility Fees		X		
Water / Sewer Fees	X		WHT	
Stormwater Utility Fees	X		WHT	
Development Impact Fees	X		WHT	
General Obligation, Revenue, and/or Special Tax Bonds	X		WHT	
Partnering Arrangements or Intergovernmental Agreements	X		WHT	
Other		X		

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification		X		May be interested in pursuing.
Natural disaster or safety related school programs		X		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	X		WHT EMA and Emergency Services organizations.	
Public-private partnership initiatives addressing disaster-related issues	X		WHT EMA partnering with stakeholders.	
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		X		
Other		X		

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability		X	
Administrative and Technical Capability		X	
Financial Capability		X	
Education and Outreach		X	

Checklist to Identify Local Compliance with the National Flood Insurance Program (NFIP)

Name: Nick Oakes **Title:** Emergency Management Coordinator

Jurisdiction: West Hempfield Township **Email:** ffoakes@gmail.com

Participation in the NFIP is based on a voluntary agreement between a community and FEMA. Compliance with the NFIP, however, extends beyond mere participation in the program. The three basic components of the NFIP include 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The requirements of the program are listed below. Please state whether or not your jurisdiction takes the following actions and provide appropriate comments.

1. FLOODPLAIN IDENTIFICATION AND MAPPING			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.	Yes	Online
b. Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.	Yes	Federal government requirements adopted.
c. Does the municipality support requests for map updates?	If yes, specify how.	Yes	County GIS maps updated.
d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.	Yes	Phone calls and/or email.
e. Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.	No	
f. Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.	No	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.	Yes	

2. FLOODPLAIN MANAGEMENT			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
(1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHA)?	If yes, specify the office responsible.	No	
(2) Does the municipality obtain, review, and utilize any base flood elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.	No	Rettew, retained engineering firm does.
(3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.	Yes	Through development reviews and approvals.
(4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.	No	Rettew, retained engineering firm does.
b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.	Yes	Zoning Office
c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA	If yes, specify activities.	No	

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
a. Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.	Yes	WHT website.

3. FLOOD INSURANCE			
Requirement	*Recommended Action*	*Yes/No*	*Comments*
b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.	No	
c. Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.	No	

Please fill in the table below that will help provide specific information on the NFIP program in your community. This includes resources, compliance history, regulation, insurance summary, and the Community Rating System.

Staff Resources		
Topic	**Source of Information**	**Comments**
Is the Community FPA or NFIP Coordinator certified?	Community Floodplain Administrator (FPA)	
Is the floodplain management an auxiliary function?	Community FPA	
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	
What are the barriers to running an effective NFIP program in the community?	Community FPA	
Compliance History		
Topic	**Source of Information**	**Comments**
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	
Are there any outstanding compliance issues (i.e., current violations)?		
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?	Community Status Book	https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Is a CAV or CAC scheduled or needed?		
Regulation		
Topic	**Source of Information**	**Comments**
Are the FIRMs digital or paper?	Community FPA	
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	
Provide an explanation of the permitting process.	Community FPA, State, FEMA, NFIP	
Insurance Summary		
Topic	**Source of Information**	**Comments**
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA or FEMA Insurance Specialist	
Community Rating System		
Topic	**Source of Information**	**Comments**
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, ISO representative	

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Nick Oakes

Title: Emergency Management Coordinator

Jurisdiction: West Hempfield Twp

Email: ffoakes@gmail.com

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	No changes needed.
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	No changes needed. Pandemic plan developed and executed with success during the COVID-19 pandemic to protect residents from disease. Daily meetings held with county health officials as well as LGH during pandemic with success.
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	Both fire departments covering WHT have a strong working relationship and continue to conduct joint training and exercises. This included an exercise with WHT police department on active attack scenarios in 2024 which continues to be an emerging threat to
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

		communities.
Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	No major changes needed. Incoming EMA coordinator will review current programs and identify potential areas for development.
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.			X			
LC-3	Action 3	Elevate structures at risk of flooding.	X					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	X					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	X					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	X					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	X					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.			X			
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.			X			
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local			X			

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
		regulations to protect new structures constructed in hazard-prone areas.						
LC-6	Action 11	Work with hazardous materials facilities in the floodplain to floodproof structures up to the 0.2% annual chance flood level.	X					
WHT-1	Action 12	Protect Wastewater Pump #134 to the 0.2% annual chance flood level.			X			
WHT-2	Action 13	Protect Wastewater Pump #149 to the 0.2% annual chance flood level.			X			

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com) by Friday, November 15

Jurisdiction: West Hempfield Township

Name/Title of Individual Completing Worksheet: Nick Oakes Emergency Management Coordinator

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Yes	
Dam Failure	Low	Yes	
Drought	Medium	Yes.	
Earthquake	Low	Yes	
Environmental Hazards: Gas and Pipeline	Medium	Yes	
Environmental Hazards: Hazardous Materials	Medium	Yes	
Flood, Flash Flood, Ice Jam	High	Yes	
Hailstorm	Medium	Yes	
Invasive Species	Medium	Yes	
Nuclear Incident	Medium	Yes	
Pandemic and Infectious Disease	Medium	Yes	
Radon Exposure	High	Yes	
Subsidence, Sinkhole	High	Yes	
Substance Use Disorder and Mental Health	Medium	Yes	
Terrorism	Medium	Yes	
Tornado, Windstorm	Medium	Yes	
Transportation Accident	High	Yes	
Utility Interruption	High	Yes	
Wildfire	Medium	Yes	
Winter Storm	Medium	Yes	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: West Hempfield Township

Name/Title of Individual Completing Worksheet: Nick Oakes Emergency Management Coordinator

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
New EMA coordinator is not fully up to speed with township actions and plans.	Work with EMA coordinator and township manager to orient coordinator to current projects and status of emergency items.	All

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Public outreach on EM activities and community preparedness needs to be improved.	New EMA coordinator will work with teams that manage township social media to include EM and preparedness communications. EMA coordinator will assist in community programs and outreach as available.	All

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed

West Lampeter Township

Hazard Identification and Risk Evaluation Worksheet

Name: Ken Barton Title: Emergency Management Coordinator

Jurisdiction: West Lampeter Township Email: emergencycoordinator@westlampeter.com

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	I	Several in last 5+ years, very minor
Flood, Flash Flood, Ice Jam	NC	Same minor issues
Hailstorms	I	Seem to be increasing, so far minor
Invasive Species	NC	
Pandemic	I	The "panic" pushed on the public, supply issues
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	I	More in past 5+ years
Wildfire	NC	
Winter Storm	D	More rain than snow
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	I	Seem to be more IT accidents
Utility Interruption	NC	
Substance Abuse/ Mental Health	I	Drugs / MH issues are increasing!!

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☒ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☒ Mass Food/Animal Feed Contamination
- ☒ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

With our continued housing increase, there will be continued increase in issues - accidents, flashflooding, etc.

Capability Assessment Survey

Name: Ken Barton & Rebecca Denlinger

Title: Emergency Mgmt Coordinator & Township Manager

Jurisdiction: West Lampeter Township

Email: rebecca@westlampeter.com

Phone Number: 717-464-3731

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan			x		
Emergency Operations Plan	**X**	**09/2022**		**West Lampeter Township**	**Update ready for BOS approval / pending re-adoption due to personnel changes**
Disaster Recovery Plan			x		
Evacuation Plan	**X**			**West Lampeter Township**	
Continuity of Operations Plan	**X**			**West Lampeter Township**	
NFIP	**X**			**West Lampeter Township**	
NFIP – Community Rating System			x		
Floodplain Regulations	**X**			**West Lampeter Township**	
Floodplain Management Plan	**X**			**West Lampeter Township**	

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Zoning Regulations	X			West Lampeter Township	
Subdivision Regulations	X			West Lampeter Township	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	X			West Lampeter Township	
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance	X			West Lampeter Township	
Natural Resource Protection Plan					
Capital Improvement Plan			X	West Lampeter Township	
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation	X			West Lampeter Township	
Building Code	X			West Lampeter Township	
Fire Code	X			West Lampeter Township	
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X		**West Lampeter Township**	
Planners or engineers (with natural and/or human caused hazards knowledge)	X		**West Lampeter Township**	
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		**West Lampeter Township**	
Emergency Manager	X		**West Lampeter Township**	
Floodplain Manager	X		**West Lampeter Township**	
Land Surveyors		X		
Scientists or staff familiar with the hazards of the community		X		
Personnel skilled in GIS and/or FEMA's HAZUS program		X		
Grant writers or fiscal staff to handle large or complex grants	X		**West Lampeter Township**	
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming	X		West Lampeter Township	
Community Development Block Grants (CDBG)		X		
Special Purpose Taxes		X		
Gas / Electric Utility Fees		X		
Water / Sewer Fees		X		
Stormwater Utility Fees		X		
Development Impact Fees	X		West Lampeter Township	
General Obligation, Revenue, and/or Special Tax Bonds	X		West Lampeter Township	
Partnering Arrangements or Intergovernmental Agreements	X		West Lampeter Township	
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification		X		
Natural disaster or safety related school programs		X		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)		X		
Public-private partnership initiatives addressing disaster-related issues	X			Partner with Willow Valley – to serve as evac or secondary EOC
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		X		Understood there is a countywide effort to identify functional needs population.
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability			X
Administrative and Technical Capability			X
Financial Capability			X
Education and Outreach			X

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Ken Barton / Rebecca S. Denlinger

Title: Emergency Mgmt Coord / Township Manager

Jurisdiction: West Lampeter Twp

Email: township@westlampter.com

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	No comments
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	No comments
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	No comments
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	No comments
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

No suggested Goals / Objectives at this time.

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.		X				
LC-3	Action 3	Elevate structures at risk of flooding.	X					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	X					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	X					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.			X			
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	X					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	X					
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.	X					

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.			X			
WLT-1	Action 11	Improve drainage along Eckman Road.		X				
WLT-2	Action 12	Improve stormwater management along Gypsy Hill Road, including installing a culvert to discharge water away from homes.				X		
WLT-3	Action 13	Improve stormwater management along Hollinger Road.		X				
WLT-4	Action 14	McFalls Property Stormwater Management - reclaim the area as a stream.		X				
WLT-5	Action 15	Protect Potable Pump #100 to the 0.2% annual chance flood level.		X				
WLT-6	Action 16	Protect Potable Pump #61 to the 0.2% annual chance flood level.		X				
WLT-7	Action 17	Protect Wastewater Pump #21 to the 0.2% annual chance flood level.		X				
WLT-8	Action 18	Retention Pond - Construct retention ponds to protect properties along Hollinger Road.		X				

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com) by Friday, November 15

Jurisdiction: West Lampeter Twp

Name/Title of Individual Completing Worksheet: Ken Barton, OEM Coordinator

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Yes	
Dam Failure	Low	Yes	
Drought	Medium	Yes	
Earthquake	Low	Yes	
Environmental Hazards: Gas and Pipeline	Medium	Yes	
Environmental Hazards: Hazardous Materials	Medium	Yes	
Flood, Flash Flood, Ice Jam	High	Yes	
Hailstorm	Medium	Yes	
Invasive Species	Medium	Yes	
Nuclear Incident	Medium	Yes	
Pandemic and Infectious Disease	Medium	Yes	
Radon Exposure	High	Yes	
Subsidence, Sinkhole	High	Yes	
Substance Use Disorder and Mental Health	Medium	Yes	
Terrorism	Medium	Yes	
Tornado, Windstorm	Medium	Yes	
Transportation Accident	High	Yes	
Utility Interruption	High	Yes	
Wildfire	Medium	Yes	
Winter Storm	Medium	Yes	

Bainbridge Water Authority

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com)

Jurisdiction: Bainbridge Water Authority

Name/Title of Individual Completing Worksheet: Angela Pantanella

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	no - low	no records stored online
Dam Failure	Low	no-medium	close to dam on susquehanna
Drought	Medium	yes	
Earthquake	Low	yes	
Environmental Hazards: Gas and Pipeline	Medium	yes	
Environmental Hazards: Hazardous Materials	Medium	yes	
Flood, Flash Flood, Ice Jam	High	yes	
Hailstorm	Medium	yes	
Invasive Species	Medium	yes	
Nuclear Incident	Medium	yes	
Pandemic and Infectious Disease	Medium	yes	
Radon Exposure	High	yes	
Subsidence, Sinkhole	High	no - medium	unaware of any danger areas
Substance Use Disorder and Mental Health	Medium	no - low	not sure how this would effect water
Terrorism	Medium	yes	
Tornado, Windstorm	Medium	yes	
Transportation Accident	High	no - low	little transportation is done
Utility Interruption	High	yes	
Wildfire	Medium	yes	
Winter Storm	Medium	yes	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality

Municipality: Bainbridge Water Authority
Name/Title of Individual Completing Worksheet: Angela Pantanella

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Update Emergency Response Plan	Complete updates	Dam failure, drought, earthquake, flood, hailstorms nuclear incidents, tornado, wild fire, winter storm, sink holes, gas/liquid pipes hazardous material release

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
no back up generator	explore the needs to obtain a 3phase generator	Utility Interruption

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
~~[illegible]~~ Public may be reaching out in other ways for information	use new platforms to be available	Pandemic/Infectious Disease Substance disorder Terrorism Cyber Incidents Invasive species

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed
no car insurance proven	have driving employees supply copy of insurance	Transportation accidents

Cocalico School District

Capability Assessment Survey

Name: STEPHEN MELNYK

Title: ASSISTANT TO THE SUPERINTENDENT

Jurisdiction: COCALICO SCHOOL DISTRICT

Email: smelnyk@cocalico.org

Phone Number: 717 336-1403

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	X	8/20/24		SCHOOL DISTRICT	EACH YEAR, THE DISTRICT UPDATES
Emergency Operations Plan	X	8/20/24		SCHOOL DISTRICT	ALL HAZARDS PLAN.
Disaster Recovery Plan	X	2022		SCHOOL DISTRICT	↓
Evacuation Plan	X	8/20/24		SCHOOL DISTRICT	↓
Continuity of Operations Plan	X	2022		SCHOOL DISTRICT	↓
NFIP					N/A
NFIP – Community Rating System					↓
Floodplain Regulations					↓
Floodplain Management Plan					↓
Zoning Regulations					↓

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
Subdivision Regulations					N/A
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)					
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance					
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation					
Building Code					✓
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)		X		
Planners or engineers (with natural and/or human caused hazards knowledge)		X		
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)		X		
Emergency Manager	X		School District	ALL DISTRICTS REQUIRED TO HAVE A SAFETY COORDINATOR + SRO
Floodplain Manager		X		
Land Surveyors		X		
Scientists or staff familiar with the hazards of the community		X		
Personnel skilled in GIS and/or FEMA's HAZUS program		X		
Grant writers or fiscal staff to handle large or complex grants	X		School District	
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming		X		
Community Development Block Grants (CDBG)		X		
Special Purpose Taxes		X		
Gas / Electric Utility Fees		X		
Water / Sewer Fees		X		
Stormwater Utility Fees		X		
Development Impact Fees		X		
General Obligation, Revenue, and/or Special Tax Bonds	X		COCALICO SCHOOL DISTRICT	
Partnering Arrangements or Intergovernmental Agreements	X		COCALICO SCHOOL DISTRICT / EAST COCALICO TOWNSHIP	
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		✓		
StormReady certification		✓		
Natural disaster or safety related school programs	✓		SCHOOL DISTRICT	PROVIDES TRAININGS TO STUDENTS + STAFF ON SAFETY TOPICS
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)		✓		
Public-private partnership initiatives addressing disaster-related issues		✓		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		✓		
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability			
Administrative and Technical Capability			
Financial Capability			
Education and Outreach			

Hazard Identification and Risk Evaluation Worksheet

Name: STEPHEN MELNYK Title: ASSISTANT TO THE SUPERINTENDENT

Jurisdiction: COCALICO SCHOOL DISTRICT Email: smelnyk@cocalico.org

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	NC	
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm		
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☑ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

CONTINUE UPGRADES TO TECHNOLOGY TO PROTECT AGAINST CYBER ATTACKS.

Mitigation Strategy 5-Year Mitigation Plan Review

Name: STEPHEN MELNYK

Title: ASSISTANT TO THE SUPERINTENDENT

Jurisdiction: COCALICO SCHOOL DISTRICT

Email: smelnyk@cocalico.org

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goals and Objectives		Comments
Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.						
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.						
LC-3	Action 3	Elevate structures at risk of flooding.						
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.						
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.						
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.						
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.						
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.						
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.						
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.						

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Cocalico SD

Name/Title of Individual Completing Worksheet: Stephen Melnyk, Assistant to the Superintendent

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
As a school district, we have to update emergency plans in the event of a natural disaster. While we develop procedures to implement in the case of a crisis, we could look to create better training opportunities for staff.	Work with local experts to develop training opportunities for staff that align with the district's EOP.	Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm/Flash Flood
As a school district, we develop reunification plans in the event the population would need to leave the area for safety reasons. At some of the reunification sites, we may be limited by resources if required to stay for an extended period of time.	Work with emergency management to secure supplies as necessary if a prolonged stay is required due to an inability to relocate to another site with better/more equipped resources and facilities.	Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm/Flash Flood

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Problem	Solution	Hazard(s) Addressed

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Columbia Borough School District

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com)

Jurisdiction:	Columbia Borough, Lancaster County, Pennsylvania
Name/Title of Individual Completing Worksheet:	Erin Birk, Safety and Security Coordinator; Columbia Borough School District

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Y	
Dam Failure	Low	Y	
Drought	Medium	Y	
Earthquake	Low	Y	
Environmental Hazards: Gas and Pipeline	Medium	Y	Several gas and other pipelines within the borough and surrounding townships
Environmental Hazards: Hazardous Materials	Medium	Y	Rail, US #30, PA Route #441, and PA Route #462
Flood, Flash Flood, Ice Jam	High	Y	Susquehanna River borders the Borough
Hailstorm	Medium	Y	
Invasive Species	Medium	Y	
Nuclear Incident	Medium	Y	Peach Bottom South and TMI North of Columbia
Pandemic and Infectious Disease	Medium	Y	
Radon Exposure	High	Y	
Subsidence, Sinkhole	High	Y	History of sinkhole issues
Substance Use Disorder and Mental Health	Medium	Y	Hands Across the Street, House of Hope
Terrorism	Medium	Y	Bridges, utilities and transportation
Tornado, Windstorm	Medium	Y	
Transportation Accident	High	Y	Rail, US #30, PA Route #441, and PA Route #462
Utility Interruption	High	Y	Electric, Gas, Propane
Wildfire	Medium	Y	
Winter Storm	Medium	Y	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Borough of Columbia

Name/Title of Individual Completing Worksheet: Erin Birk, Safety and Security Coordinator; Columbia Borough School District

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Outdated and weak ordinances, training, and equipment for staff in the borough	Emergency Management is seeking grants to contract for ordinance review and strengthening, training, and equipment	As a result of these steps by the borough, increased public safety & staff safety, increased knowledge for staff on community safety

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Lack of sites for mass evacuations with backup power	Emergency Management is working to design a backup generator for the school district assembly areas	Mass evacuation area with backup power needed for public safety in large scale events of any type

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Several areas throughout the borough have a lack of proper drainage during heavy rain	Emergency Management/Borough is working to design better storm water runoff system	Safe travels of all forms and reduced flooding incidents in travel areas and occupied structures

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
River front properties can easily sustain flood damage during a large rain event/ ice jam due to the elevation	Borough is working to develop a prevention measure to increase the elevation, even if temporary during a weather event	Provides for safety & well-being of those who live and travel within the river front area

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
History of sinkholes within the borough	Borough will be seeking a geological study of the earth under the borough to establish areas that need addressed	This will protect lives, homes, utilities, and roads that could be destroyed in an event

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Population of homeless persons	Borough continues to provide shelter areas for all who need this support	Safety and well-being for the weather elements and domestic terrorism
	School district provides supports through McKinney-Vento for all homeless youth	
	School district provides meal solutions for homeless families	

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Ensuring communication with residents with public safety alerts and alerts of potential public safety hazards	Borough is working with contracts to ensure efficient reporting when planned work is occurring, quicker notification from the emergency response agencies, and designing a campaign to get residents signed up.	Increased public awareness/notification of hazardous and/or congested areas to avoid. Provides for better notification of problems and areas to avoid or what to do in an emergency
	School district notifies families of emergencies through established systems	

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Lack of training for staff and community leaders in the borough	Federal and state leaders create and provide classes to help educate local leaders how to solve problems via grants and other resources	Public safety and infrastructure

Conestoga Valley School District

Hazard Identification and Risk Evaluation Worksheet

Name: Jonathan Werner **Title:** Director of Safety and Security

Jurisdiction: Conestoga Valley School District **Email:** jonathan_werner@conestogavalley.org

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	D	
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- X Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- X Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Capability Assessment Survey

Name: Jonathan Werner

Title: Director of Safety and Security

Jurisdiction: Conestoga Valley School District

Email: jonathan_werner@conestogavalley.org

Phone Number: (717) 693-2998

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**X**	**2021**		**IU-13**	**School District-wide All Hazards Plan**
Emergency Operations Plan			**2024**	**CV School District**	**Last emergency operations plan done in 2010**
Disaster Recovery Plan		**2021**		**CV School District**	**School District-wide All Hazards Plan**
Evacuation Plan			**2024**	**CV School District**	**Under development**
Continuity of Operations Plan		**2021**		**CV School District**	**School District-wide All Hazards Plan**
NFIP					**N/A**
NFIP – Community Rating System					**N/A**
Floodplain Regulations					**N/A**
Floodplain Management Plan					**N/A**
Zoning Regulations					**N/A**

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Subdivision Regulations					**N/A**
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)					**N/A**
Open Space Management Plan (or Parks/Rec or Greenways Plan)					**N/A**
Stormwater Management Plan / Ordinance					**N/A**
Natural Resource Protection Plan					**N/A**
Capital Improvement Plan					**N/A**
Economic Development Plan					**N/A**
Historic Preservation Plan					**N/A**
Farmland Preservation					**N/A**
Building Code					**N/A**
Fire Code					**N/A**
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)		X	CV School District	
Planners or engineers (with natural and/or human caused hazards knowledge)		X		
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)		X		
Emergency Manager	X		CV School District	Director of Safety and Security
Floodplain Manager		X		
Land Surveyors		X		
Scientists or staff familiar with the hazards of the community		X		
Personnel skilled in GIS and/or FEMA's HAZUS program		X		
Grant writers or fiscal staff to handle large or complex grants		X		
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming		X	CV School District	
Community Development Block Grants (CDBG)		X		
Special Purpose Taxes		X		
Gas / Electric Utility Fees		X		
Water / Sewer Fees		X		
Stormwater Utility Fees		X		
Development Impact Fees		X		
General Obligation, Revenue, and/or Special Tax Bonds		X		
Partnering Arrangements or Intergovernmental Agreements		X		
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X	CV School District	
StormReady certification		X		
Natural disaster or safety related school programs		X		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)		X		
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		X		
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability	X		
Administrative and Technical Capability	X		
Financial Capability	X		
Education and Outreach		X	

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Jonathan Werner

Title: Director of Safety and Security

Jurisdiction: Conestoga Valley School District

Email: jonathan_werner@conestogavalley.org

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goals and Objectives		Comments
Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	XX					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.	XX					
LC-3	Action 3	Elevate structures at risk of flooding.	XX					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	XX					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	XX					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	XX					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	XX					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	XX					
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.	XX					
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.	XX					

Donegal School District

East Cocalico Water and Sewer

Hazard Identification and Risk Evaluation Worksheet

Name: Michael Galley **Title:** Community Development & Environmental Compliance Manager

Jurisdiction: East Cocalico Township Authority **Email:** mgalley@ecocalicotwpauth.com

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	I	Drought frequency and severity has impacted ECTA well aquifers and influenced decreasing trends in formerly strong wells.
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	NC	
Radon Exposure	NC	
Subsidence and Sinkholes	I	Sinkhole prevalence has impacted at least one ECTA well, deeming it unusable without significant treatment upgrades to accommodate GUDI designation. Future water supply planning may be impacted by potential sinkholes
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Environmental Hazards (Hazmat)	I	Environmental contamination has caused one ECTA well to be abandoned, historically, and a second is expected to require treatment in the near future if upward trend continues.
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- × Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- × Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- × Environmental Hazards – Conventional Oil/Gas Wells
- × Environmental Hazards – Gas and Liquid Pipelines
- × Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- × Terrorism
- × Urban Fire/Explosion

Additional Comments:

Cyber Terrorism is a broad concern for public utilities due to the potential impact on operational technologies (OT). A hack or breach of OT could result in unauthorized process control changes that may cause wide-spread public health risks.

Oil/gas drilling of any nature has the impact for contamination of water supply aquifers. This may be caused by pipeline breaks or drilling waste releases.

Extreme cold can influence water or sanitary sewer main breaks.

Capability Assessment Survey

Name: Mike Galley

Title: Community Development & Environmental Compliance Manager

Jurisdiction: East Cocalico Township Authority

Email: mgalley@ecocalicotwpauth.com

Phone Number: 717-336-1731

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan					
Emergency Operations Plan	**X**	**5/14/24**		**USEPA**	**Required by SDWA 1433(b). Updated annually.**
Disaster Recovery Plan					**N/A**
Evacuation Plan	**X**	**5/30/23**		**ECTA**	**Included in ECTA Employee Safety Manual**
Continuity of Operations Plan	**X**			**ECTA**	**Elements included in Emergency Response Plan and O&M Plan**
NFIP					**N/A**
NFIP – Community Rating System					**N/A**
Floodplain Regulations					**N/A**
Floodplain Management Plan					

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Zoning Regulations					**N/A**
Subdivision Regulations					**N/A**
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)					**N/A**
Open Space Management Plan (or Parks/Rec or Greenways Plan)					**N/A**
Stormwater Management Plan / Ordinance					**N/A**
Natural Resource Protection Plan	**X**	**3/29/22**		**PADEP**	**Source Water Protection Plan**
Capital Improvement Plan	**X**			**ECTA**	**Included in ECTA annual budget process**
Economic Development Plan					**N/A**
Historic Preservation Plan					**N/A**
Farmland Preservation					**N/A**
Building Code					**N/A**
Fire Code					**N/A**
Other					**N/A**

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	X		ECTA	ECTA Executive Director, Compliance Manager
Planners or engineers (with natural and/or human caused hazards knowledge)	X		ECTA	Engineering consultants (CDM Smith, Entech Engineering)
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		ECTA	Licensed UCC plumbing inspectors on staff
Emergency Manager	X		ECTA	ECTA Executive Director, O&M Manager
Floodplain Manager		X		
Land Surveyors		X		
Scientists or staff familiar with the hazards of the community		X		
Personnel skilled in GIS and/or FEMA's HAZUS program	X		ECTA	ECTA staff and GIS consultant (Entech Engineering)
Grant writers or fiscal staff to handle large or complex grants	X		ECTA	ECTA Compliance Manager
Other	X		ECTA	ECTA office staff lend additional support for customer communication in case of emergency

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming	X		ECTA	ECTA Executive Director, Accountant, Board
Community Development Block Grants (CDBG)		X		
Special Purpose Taxes		X		
Gas / Electric Utility Fees		X		
Water / Sewer Fees	X		ECTA	
Stormwater Utility Fees		X		
Development Impact Fees		X		
General Obligation, Revenue, and/or Special Tax Bonds		X		
Partnering Arrangements or Intergovernmental Agreements		X		
Other	X		ECTA	Tapping fees and Capital Contribution fees required for all new connections to ECTA systems.

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification		X		
Natural disaster or safety related school programs		X		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	X		ECTA	ECTA website, newsletters, school outreach program
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	X		ECTA/ ECT PD/ Local fire companies/ LEMA	Emergency response steering meeting conducted as part of SWPP
Other		X		

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability	X		
Administrative and Technical Capability			X
Financial Capability		X	
Education and Outreach			X

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Michael Galley	Title: Community Development & Environmental Compliance Manager
Jurisdiction: East Cocalico Township Authority	Email: mgalley@ecocalicotwpauth.com

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	1.1 Build on partnership with Township commenting on proposed development within SWP zones. 1.3 Continue SWP to influence environmental stewardship to prevent contamination in source supply areas.
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	Protection of water supply sources and treatment facilities. Focus on cybersecurity and conventional terrorism (i.e. source water contamination).
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	3.1 Maintain steering meetings for emergency response agencies
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goals and Objectives		Comments
Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	Water Supply sign outreach publications Industrial customer – spill response awareness
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.	X					*N/A*
LC-3	Action 3	Elevate structures at risk of flooding.	X					*N/A*
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	X					*N/A*
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	X					N/A
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	X					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	X					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	X					*N/A*
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.	X					*N/A*
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.				X		*ECTA specs enforcement is normal procedure*

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com) by Friday, November 15

Jurisdiction: East Cocalico Township Authority

Name/Title of Individual Completing Worksheet: Michael Galley, Compliance Manager

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Y	
Dam Failure	Low	Y	
Drought	Medium	N (High)	Drought conditions can significantly impact our ability to supply water to our customers.
Earthquake	Low	Y	
Environmental Hazards: Gas and Pipeline	Medium	Y	
Environmental Hazards: Hazardous Materials	Medium	Y	
Flood, Flash Flood, Ice Jam	High	N (Low)	These conditions may affect our transportation between facilities, but do not pose a direct risk to our operation.
Hailstorm	Medium	N (Low)	These conditions may affect our transportation between facilities, but do not pose a direct risk to our operation.
Invasive Species	Medium	N (Low)	These conditions do not pose a direct risk to our operation.
Nuclear Incident	Medium	Y	
Pandemic and Infectious Disease	Medium	Y	
Radon Exposure	High	N (Medium)	This condition can be mitigated with treatment.
Subsidence, Sinkhole	High	Y	
Substance Use Disorder and Mental Health	Medium	N (Low)	Our employees are required to submit to pre-employment and random drug and alcohol testing. An employee suspected to be unfit for work will be removed from safety-sensitive functions.
Terrorism	Medium	Y	
Tornado, Windstorm	Medium	Y	
Transportation Accident	High	N (Medium)	A transportation accident may impact an employee or cause an environmental impact that can monitored. It does not pose a direct risk to our service.
Utility Interruption	High	Y	

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Wildfire	Medium	N (Low)	These conditions may affect our transportation between facilities, but do not pose a direct risk to our operation.
Winter Storm	Medium	N (Low)	These conditions may affect our transportation between facilities, but do not pose a direct risk to our operation.

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Michael Galley

Name/Title of Individual Completing Worksheet: East Cocalico Township Authority (ECTA)/ Compliance Manager

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Most ECTA customer meters are read on a quarterly basis using drive-by "radio read" technology. ECTA has no way of knowing if customers are experiencing excessive water usage due to leaks until meters are read. Malfunctioning meters also cannot be identified until quarterly reading, which may cause unmetered water loss.	A fixed-base metering system with remote read technology would create a more efficient reading and notification system in which ECTA would have real-time notification of excess water use or meter failure that would increase the speed at which ECTA can respond. The response would include faster customer communication and enforcement during severe drought or other water shortage emergency. Cost = $1,300,000, including installation, for ECTA's full system. ECTA plans to begin replacements, as needed, in a phased approach in 2025.	Drought/ Utility interruption

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
ECTA owns one emergency generator that can provide power to each ECTA well source, individually. In the event of a widespread power outage, only one groundwater source could be powered; ECTA does not have redundant backup power sources.	Purchase of an additional backup power source would give ECTA the capability to power two groundwater wells and the ability to better meet demand, in the event of a widespread power outage. A generator meeting the following specifications would be appropriately sized to power any well in ECTA's system: • 3-phase • 208/480 V • 110 kW • 300A/150A Based on a recent purchase of similar scope, cost = $100,000, including trailer to mobilize the generator.	Tornado/Windstorm/Utility Interruption/Winter Storm/ Hailstorms

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
ECTA operates twelve groundwater production wells to supply water to its customers. If a single source were to be impacted by a hazard and taken offline, it could impact ECTA's ability to meet water demands.	ECTA neighbors three other municipal water systems. An emergency interconnect with any of these three systems, would provide ECTA the ability to continue serving its customers while working towards bringing a well source back online. Cost = $1,000,000.	Earthquake/Hazardous Materials Release/ Subsidence/Sinkholes/ Utility Interruption

Problem	Solution	Hazard(s) Addressed
Should a sinkhole open in close proximity to an ECTA wellhead, it is possible that aquifer would be compromised and the nearby well would be considered “groundwater under the influence of surface water” (GUDI). If a water source is classified as GUDI, a new treatment process and permitting is required to utilize the well source.	If a groundwater well is classified as GUDI, a treatment upgrade is required including more advanced filtering and disinfection. Most of ECTA’s well sources would also require facility expansion to make room for the upgraded treatment. Cost would be dependent on the source well capacity, but a recent comparable upgrade is estimated at $3,000,000.	Subsidence/Sinkholes

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Eastern Lancaster School District

Elizabethtown Area School District

Hazard Identification and Risk Evaluation Worksheet

Name: Garret Rain **Title:** Safety & Security Coordinator

Jurisdiction: Elizabethtown Area School District **Email:** Garret_rain@etownschools.org

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	NC	
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	D	TMI is being decommissioned.
Transportation Accidents	I	With the growth of warehouses in the area an increase in traffic, then corresponding crashes are likely.
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levy Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

The school district is always subject to weather issues in transporting student to and from school. This is more problematic with ice, snow, and like weather.

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Garret Rain	Title: Safety & Security Coordinator
Jurisdiction: Elizabethtown Area School District	Email: garret_rain@etownschools.org

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goals and Objectives		Comments
Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		**We do not have a hazard mitigation plan. As a school district we have a FEMA/PEMA/PCCD compliant Emergency Operations Plan (EOP). Out EOP is updated annually and submitted to LEMA. As such this report does not appear to apply to us.**
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.						
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.						
LC-3	Action 3	Elevate structures at risk of flooding.						
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.						
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.						
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.						
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.						
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.						
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.						
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.						

Capability Assessment Survey

Name: Garret Rain **Title:** Safety & Security Coordinator

Jurisdiction: Elizabethtown Area School District **Email:** Garret_rain@etownschools.org

Phone Number: 717-367-1533 Ext. 21658

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan					
Emergency Operations Plan	**X**	**NA**		**EASD**	**The district is required by law to have an EOP. The EOP was made PEMA compliant in 2019 and is updated each year.**
Disaster Recovery Plan					
Evacuation Plan					**See EOP**
Continuity of Operations Plan					**See EOP**
NFIP					
NFIP – Community Rating System					
Floodplain Regulations					
Floodplain Management Plan					

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Zoning Regulations					
Subdivision Regulations					
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)					
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance					
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation					
Building Code					
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)		X		
Planners or engineers (with natural and/or human caused hazards knowledge)	X		EASD	Safety & Security Coordinator
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		EASD	Building & Grounds Team
Emergency Manager		X		
Floodplain Manager		X		
Land Surveyors		X		
Scientists or staff familiar with the hazards of the community		X		
Personnel skilled in GIS and/or FEMA's HAZUS program		X		
Grant writers or fiscal staff to handle large or complex grants		X		
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming	X		EASD	Chief Financial & Operations Officer
Community Development Block Grants (CDBG)		X		
Special Purpose Taxes		X		
Gas / Electric Utility Fees		X		
Water / Sewer Fees		X		
Stormwater Utility Fees		X		
Development Impact Fees		X		
General Obligation, Revenue, and/or Special Tax Bonds		X		
Partnering Arrangements or Intergovernmental Agreements		X		
Other	X		EASD	Property Taxes

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification		X		
Natural disaster or safety related school programs		X		
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	X		EASD	We teach students and staff in the use of the EOP and other life-safety measures.
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		X		
Other		X		

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability			X
Administrative and Technical Capability			X
Financial Capability		X	
Education and Outreach		X	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Elizabethtown Area School District

Name/Title of Individual Completing Worksheet: Garret L Rain, Safety & Security Coordinator

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Based on PA Department of Health 19% of all students K-12 vape with the majority being in 9th to 12th grade. With nearly 3,600 students in our district 19% equals 684 students. Over the past two years we called 911 three times for students experiencing medical issues suspected to be caused due to vaping illicit substances, the event took place 12/16/24. Searching the student management system for the past three school years, student discipline for illicit substance/vaping violations is on the rise. In the 2021-2022 there were 33 events. Looking to 2022 to 2023 there were 55 events. Then in the 2023-2024 there were 77 events. Over the last three years we have seen an 80% rise in illicit substance/vaping events in the last three years.	Install vape detectors in the High School and Middle School restrooms. We have 16 student restrooms. With a cost of about $4000 per unit the total cost would be about $64,000.	Substance Use Disorder

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Ephrata Area School District

Hazard Identification and Risk Evaluation Worksheet

Name: Jacy Clugston Hess **Title:** Asst. Superintendent

Jurisdiction: Ephrata Area SD **Email:** jacy_hess@easdpa.org

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	I	Heightened awareness
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	D	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com)

Jurisdiction: Ephrata Area School District

Name/Title of Individual Completing Worksheet: Officer John Hirneisen – SRO
Jacy Clugston Hess – Safety & Security Coordinator

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Y	
Dam Failure	Low	Y	
Drought	Medium	Y	
Earthquake	Low	Y	
Environmental Hazards: Gas and Pipeline	Medium	Y	
Environmental Hazards: Hazardous Materials	Medium	Y	
Flood, Flash Flood, Ice Jam	High	Y	
Hailstorm	Medium	Y	
Invasive Species	Medium	Y	
Nuclear Incident	Medium	Y	
Pandemic and Infectious Disease	Medium	Y	
Radon Exposure	High	Y	
Subsidence, Sinkhole	High	Y	
Substance Use Disorder and Mental Health	Medium	Y	
Terrorism	Medium	Y	
Tornado, Windstorm	Medium	Y	
Transportation Accident	High	Y	
Utility Interruption	High	Y	
Wildfire	Medium	Y	
Winter Storm	Medium	Y	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Ephrata Area School District

Name/Title of Individual Completing Worksheet: Officer John Hirneisen – SRO
Jacy Clugston Hess – Safety & Security Coordinator

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Students are experiencing higher levels of mental illness in our community.	Though addressing mental health concerns requires a community approach, the school works to contribute by increasing mental health support through *reporting systems *School counseling availability *Access to outside counseling during school hours and on school property *Family referral to other outside supports	Substance Abuse Disorder & Mental Health

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Ongoing threat of cyber-attack including *Data infiltration *Data corruption *Ransomware	The District continues to upgrade technology security through *Network segmentation *Mult-Factor Authentication *Limited account privileges *Remote data back ups	Cyber Incident

Problem	Solution	Hazard(s) Addressed

Hempfield School District

Mitigation Strategy 5-Year Mitigation Plan Review

Name: William Gleason | Title: Safety and Security Supervisor

Jurisdiction: Hempfield School District | Email: william_gleason@hempfieldsd.org

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	No Comments
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goals and Objectives		Comments
Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	No Comments
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		**No Comments**
Objective		
Objective		

Goal		
Objective		**No Comments**
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	x					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.	x					
LC-3	Action 3	Elevate structures at risk of flooding.	x					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	x					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.	x					
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	x					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	x					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	x					
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.	x					
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.	x					

Capability Assessment Survey

Name: William Gleason

Title: Safety and Security Supervisor

Jurisdiction: Hempfield School District

Email: William_gleason@hempfieldsd.org

Phone Number: 717-587-9159

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan					
Emergency Operations Plan	**x**	**6/1/2024**		**County EMA**	
Disaster Recovery Plan	**x**	**6/1/2024**		**County EMA**	
Evacuation Plan	**x**	**6/1/2024**		**County EMA**	
Continuity of Operations Plan	**x**	**6/1/2024**		**County EMA**	
NFIP					
NFIP – Community Rating System					
Floodplain Regulations					
Floodplain Management Plan					
Zoning Regulations					

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Subdivision Regulations					
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)					
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance					
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation					
Building Code					
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)		x		
Planners or engineers (with natural and/or human caused hazards knowledge)		x		
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)		x		
Emergency Manager	x			
Floodplain Manager		x		
Land Surveyors		x		
Scientists or staff familiar with the hazards of the community		x		
Personnel skilled in GIS and/or FEMA's HAZUS program		x		
Grant writers or fiscal staff to handle large or complex grants		x		
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming		x		
Community Development Block Grants (CDBG)		x		
Special Purpose Taxes		x		
Gas / Electric Utility Fees		x		
Water / Sewer Fees		x		
Stormwater Utility Fees		x		
Development Impact Fees		x		
General Obligation, Revenue, and/or Special Tax Bonds		x		
Partnering Arrangements or Intergovernmental Agreements	x		E. Hempfield PD, W. Hempfield PD, NLCRP	
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		x		
StormReady certification		x		
Natural disaster or safety related school programs	x			
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)		x		
Public-private partnership initiatives addressing disaster-related issues		x		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		x		
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability	x		
Administrative and Technical Capability	x		
Financial Capability	x		
Education and Outreach	x		

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Hempfield School District

Name/Title of Individual Completing Worksheet: William Gleason

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

Flood/Flash Flood/Ice Jams-- Hempfield School District, more specifically the Landisville campus of the district will undergo major construction at the high school over the next few years. Part of the school will be renovated with another part being torn down. The high school building, lots and a ballfield will be impacted, and potentially have water runoff issues in the future.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Potential water runoff	Ensure proper drainage is implemented during the construction phase	Flooding

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Generators at buildings provide basic support	N/A	

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
No current culvert issues prior to construction	Monitor water runoff during all phases of construction	Flooding

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
No district buildings have problems with flooding currently	Monitor water runoff during all phases of construction	Flooding

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Buildings of concern are primarily the high school and admin building.	Put in protection measures during construction if meeded.	Flooding

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed
N/A- Potential issues are on school property only.		

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Road closures, detours etc, during construction.	Increase communication to community via all available social media platforms, as well as news releases, updating information on web site.	Potential road closures.

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed
N/A		

Lampeter-Strasburg School District

Hazard Identification and Risk Evaluation Worksheet

Name: Glenn Davis **Title:** Director of Buildings and Grounds

Jurisdiction: Lampeter-Strasburg School District **Email:** glenn_davis@l-spioneers.org

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	I	Storm damage getting worse and more frequent
Hailstorms	NC	
Invasive Species	NC	
Pandemic	NC	
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	I	Same as above
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- X **Extreme Temperature**- frequency increased and extended into school year
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- X **Cyber Terrorism-** concern has increased
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Capability Assessment Survey

Name: Glenn Davis

Title: Director of Buildings and Grounds

Jurisdiction: Lampeter-Strasburg School District

Email: Glenn_davis@l-spioneers.org

Phone Number: 717-464-3311 ext. 1018

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan					N/A
Emergency Operations Plan		6/2024		Admin Team	All Hazards Plan
Disaster Recovery Plan		6/2024			
Evacuation Plan		6/2024			
Continuity of Operations Plan		6/2024			
NFIP- National Flood Insurance Program					N/A
NFIP – Community Rating System					N/A
Floodplain Regulations					N/A
Floodplain Management Plan					N/A

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Zoning Regulations					N/A
Subdivision Regulations					N/A
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)					N/A
Open Space Management Plan (or Parks/Rec or Greenways Plan)					N/A
Stormwater Management Plan / Ordinance					N/A
Natural Resource Protection Plan					N/A
Capital Improvement Plan		06/2024		Admin/Board	
Economic Development Plan					N/A
Historic Preservation Plan					N/A
Farmland Preservation					N/A
Building Code					N/A
Fire Code					N/A
Other					N/A

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)		X		
Planners or engineers (with natural and/or human caused hazards knowledge)		X		
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)		X		
Emergency Manager		X		
Floodplain Manager		X		
Land Surveyors		X		
Scientists or staff familiar with the hazards of the community		X		
Personnel skilled in GIS and/or FEMA's HAZUS program		X		
Grant writers or fiscal staff to handle large or complex grants		X		
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming	X		Admin/Board	
Community Development Block Grants (CDBG)		X		
Special Purpose Taxes		X		
Gas / Electric Utility Fees		X		
Water / Sewer Fees		X		
Stormwater Utility Fees		X		
Development Impact Fees		X		
General Obligation, Revenue, and/or Special Tax Bonds	X		Admin/Board	
Partnering Arrangements or Intergovernmental Agreements	X		Admin/Board	
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification		X		
Natural disaster or safety related school programs	X			Required School Drills
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)		X		
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		X		
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability	X		
Administrative and Technical Capability	X		
Financial Capability	X		
Education and Outreach	X		

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Glenn Davis | Title: Director of Buildings and Grounds

Jurisdiction: Lampeter-Strasburg School District | Email: glenn_davis@l-spioneers.org

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	N/A
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	N/A
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goals and Objectives		Comments
Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	N/A
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.						N/A
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.						N/A
LC-3	Action 3	Elevate structures at risk of flooding.						N/A
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.						N/A
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.						N/A
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.						N/A
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.						N/A
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.						N/A
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.						N/A
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.						N/A

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com) by Friday, November 15

Jurisdiction: Lampeter-Strasburg School District

Name/Title of Individual Completing Worksheet: Keith Stoltzfus, Business Manager

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High		
Dam Failure	Low		
Drought	Medium	No, Low	Very low impact to a School District
Earthquake	Low		
Environmental Hazards: Gas and Pipeline	Medium		
Environmental Hazards: Hazardous Materials	Medium		
Flood, Flash Flood, Ice Jam	High		
Hailstorm	Medium		
Invasive Species	Medium	No, Low	Very low impact to a School District
Nuclear Incident	Medium		
Pandemic and Infectious Disease	Medium		
Radon Exposure	High		
Subsidence, Sinkhole	High	No, Low	Very low impact to our School District
Substance Use Disorder and Mental Health	Medium		
Terrorism	Medium		
Tornado, Windstorm	Medium		
Transportation Accident	High		
Utility Interruption	High		
Wildfire	Medium	No, Low	Very low impact to a School District
Winter Storm	Medium		

Lancaster Area Sewer Authority

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com)

Jurisdiction: Lancaster Area Sewer Authority

Name/Title of Individual Completing Worksheet: Michael J. Wolgemuth/ Executive Director

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Y	
Dam Failure	Low	Y	
Drought	Medium	Y	
Earthquake	Low	Y	
Environmental Hazards: Gas and Pipeline	Medium	Y	
Environmental Hazards: Hazardous Materials	Medium	Y	
Flood, Flash Flood, Ice Jam	High	Y	
Hailstorm	Medium	Y	
Invasive Species	Medium	Y	
Nuclear Incident	Medium	Y	
Pandemic and Infectious Disease	Medium	Y	
Radon Exposure	High	Y	
Subsidence, Sinkhole	High	Y	
Substance Use Disorder and Mental Health	Medium	Y	
Terrorism	Medium	Y	
Tornado, Windstorm	Medium	Y	
Transportation Accident	High	Y	
Utility Interruption	High	Y	
Wildfire	Medium	Y	
Winter Storm	Medium	Y	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Lancaster Area Sewer Authority (LASA)

Name/Title of Individual Completing Worksheet: Michael Wolgemuth/Executive Director

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	2020
The Emergency Response Plan is in need of an update. The previous edition of the plan was completed in 2020 and the format is outdated.	Assess whether LASA has the capabilities to complete this plan update on its own. If not, research various funding streams, including the BRIC, HMGP, EMPG, and HSPG grants to provide assistance in completing and update of the Emergency Response Plan.	Cyber Incidents, Earthquake, Gas and Liquid Pipelines, Hazardous Materials Releases, Flood/Flash Flood/Ice Jams, Hailstorms, Invasive Species, Nuclear Incidents, Pandemic and Infectious Disease, Radon Exposure, Subsidence and Sinkholes, Substance Use Disorder, Terrorism, Tornado and Windstorm, Transportation Accidents, Utility Interruption, Wildfire, Winter Storm

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Administration building does not have back-up power. This is the control center should an emergency incident occur. 130 Centerville Road, Lancaster PA 17603	LASA will work with its engineers (internal or contracted) to determine the required load capacity of an emergency generator for its administrative building, located at 130 Centerville Road, Lancaster PA 17603. Once determined, LASA will install the generator with assistance from a contractor if required. This generator will ensure the critical facility can maintain its operations should an emergency or incident occur.	Cyber Incidents, Drought, Earthquake, Hailstorms, Terrorism, Tornado and Windstorm, Utility Interruption, Wildfire, Winter Storm
Large pump station is in need of an emergency generator 2705 Charlestown Road, Lancaster PA 17603	LASA has completed a study to identify the required load capacity of a generator to be installed at the pump station located at 2705 Charlestown Road, Lancaster PA 17603. This generator will ensure the critical piece of infrastructure maintains operability should an emergency or incident occur.	Cyber Incidents, Drought, Earthquake, Hailstorms, Terrorism, Tornado and Windstorm, Utility Interruption, Wildfire, Winter Storm

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Pump stations susceptible to flooding, Blue Rock 1-324 Blue Rock Rd. Washington Boro PA 17582 Holland Hills- 204 Donnerville Rd Lancaster PA 17603 Silver Spring- 830 Silver Spring Rd Silver Spring PA 17575 Elizabeth Street- 8 Elizabeth St, Washington Boro PA 17582 River Road-1850 Water Street Washington Boro PA 17582 Eden Road- 1891 Eden Rd, Lancaster PA 17601 Pleasure Road- 1401 Pleasure Rd Lancaster PA 17601	LASA will work with engineers, internal or contracted, to assess the feasibility of elevating or relocating it various pump stations from flood-prone locations. These pump stations frequently experience flooding conditions from the many waterways and waterbodies in Lancaster County. Elevating or relocating the pump stations will mitigate flood risk and prevent the utility from being interrupted.	Flood/Flash Flood/Ice Jams, Utility Interruption

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
LASA has not created a professional-styled video for outreach, recruitment, and highlighting the organization's mission and operations. LASA is committed to superior wastewater management to protect the community, public health, and the environment. Its goals align with environmental protection and stewardship. The creation of this video will educate viewers on how LASA assists in mitigation efforts through its wastewater management practices.	LASA will research professional film companies to assist in the production of a video dedicated to conducting outreach, recruitment, and highlighting the organization's mission and operations.	Flood/Flash Flood/Ice Jams, Utility Interruption

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed

Lancaster Bible College

Lancaster County Conservation District

Lancaster School District

Hazard Identification and Risk Evaluation Worksheet

Name: Christopher Krokos **Title:** School Safety Coordinator

Jurisdiction: School District of Lancaster **Email:** christopherkrokos@sdlancaster.org

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	NC	
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- XX Extreme Temperature
- X Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- X Lightning Strike

Human-Caused

- X Building and Structure Collapse
- X Civil Disturbance
- X Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- X Environmental Hazards – Conventional Oil/Gas Wells
- X Environmental Hazards – Gas and Liquid Pipelines
- X Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- X Opioid Addiction
- X Terrorism
- X Urban Fire/Explosion

Additional Comments:

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Christopher Krokos

Title: School Safety Coordinator

Jurisdiction: Lancaster city and Lancaster Township

Email: christopherkrokos@sdlancaster.org

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	We do a significant amount of work in this area on our properties.
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	We do a significant amount of work in this area on our properties.
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	We do a significant amount of work in this area on our properties.
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goals and Objectives		Comments
Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	We do a significant amount of work in this area on our properties.
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal	**N/A**	
Objective		**N/A**
Objective		
Objective		

Goal	**N/A**	
Objective		**N/A**
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	x					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.	x					
LC-3	Action 3	Elevate structures at risk of flooding.			x			
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	x					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.			x			
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	x					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.			x			
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	x					
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.			x			
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.			x			

Capability Assessment Survey

Name: Christopher Krokos **Title:** School Safety Coordinator

Jurisdiction: School District of Lancaster **Email:** christopherkrokos@sdlancaster.org

Phone Number: 717-735-7940

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**x**	**1/1/2024**		**SDoL et al**	
Emergency Operations Plan	**x**	**1/1/2024**		**SDoL et al**	
Disaster Recovery Plan	**x**	**1/1/2024**		**SDoL et al**	
Evacuation Plan	**x**	**1/1/2024**		**SDoL et al**	
Continuity of Operations Plan	**x**	**1/1/2024**		**SDoL et al**	
NFIP					
NFIP – Community Rating System					
Floodplain Regulations	**x**	**1/1/2024**		**Lanc, City, Lanc Twp**	
Floodplain Management Plan	**x**	**1/1/2024**		**Lanc, City, Lanc Twp**	
Zoning Regulations	**x**	**1/1/2024**		**Lanc, City, Lanc Twp**	

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Subdivision Regulations	x	1/1/2024		Lanc City, Lanc Twp	
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	x	1/1/2024		Lanc City, Lanc Twp	
Open Space Management Plan (or Parks/Rec or Greenways Plan)	x	1/1/2024		Lanc City, Lanc Twp	
Stormwater Management Plan / Ordinance	x	1/1/2024		Lanc City, Lanc Twp	
Natural Resource Protection Plan	x	1/1/2024		Lanc City, Lanc Twp	
Capital Improvement Plan	x	1/1/2024		SDoL	
Economic Development Plan	x	1/1/2024		SDoL	
Historic Preservation Plan	x	1/1/2024		Lanc City, Lanc Twp	
Farmland Preservation					
Building Code	x	1/1/2024		Lanc City, Lanc Twp	
Fire Code	x	1/1/2024		Lanc City, Lanc Twp	
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)	x		Lanc City, Lanc Twp	
Planners or engineers (with natural and/or human caused hazards knowledge)	x		Lanc City, Lanc Twp	
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	x		Lanc City, Lanc Twp	
Emergency Manager	x		Lanc City, Lanc Twp	
Floodplain Manager				
Land Surveyors	x		Lanc City, Lanc Twp	
Scientists or staff familiar with the hazards of the community	x		Lanc City, Lanc Twp	
Personnel skilled in GIS and/or FEMA's HAZUS program	x		Lanc City, Lanc Twp	
Grant writers or fiscal staff to handle large or complex grants	x		Lanc City, Lanc Twp	
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming	x		SDoL	
Community Development Block Grants (CDBG)	x		SDol, Lanc City	
Special Purpose Taxes	x		Lanc City, Lanc Twp	
Gas / Electric Utility Fees	x		Lanc City, Lanc Twp	
Water / Sewer Fees	X		Lanc City, Lanc Twp	
Stormwater Utility Fees	X		Lanc City, Lanc Twp	
Development Impact Fees	X		Lanc City, Lanc Twp	
General Obligation, Revenue, and/or Special Tax Bonds	X		Lanc City, Lanc Twp	
Partnering Arrangements or Intergovernmental Agreements	x		Lanc City, Lanc Twp, SDoL	
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		x		
StormReady certification	x		SDoL, Lanc City, Lanc Twp	
Natural disaster or safety related school programs	x		SDoL	
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)	x		SDoL	
Public-private partnership initiatives addressing disaster-related issues	x		SDoL, Lanc City, Lanc Twp	
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	x		SDoL, Lanc City, Lanc Twp	
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability		x	
Administrative and Technical Capability		x	
Financial Capability		x	
Education and Outreach		x	

Lancaster-Lebanon Intermediate Unit

Hazard Identification and Risk Evaluation Worksheet

Name: Stephen Halstead **Title:** Safety & Security Coordinator/Chief

Jurisdiction: Lancaster-Lebanon IU13 **Email:** Stephen_Halstead@iu13.org

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	NC	
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- ☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Capability Assessment Survey

Name: Stephen Halstead

Title: Safety & Security Coordinator/Chief of Police

Jurisdiction: Lancaster-Lebanon IU13

Email: Stephen_Halstead@iu13.org

Phone Number: 717-947-1856

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan					
Emergency Operations Plan	**X**	**1/1/2023**		**Safety & Security**	
Disaster Recovery Plan					
Evacuation Plan	**X**	**6/1/2023**		**Safety & Security**	
Continuity of Operations Plan					
NFIP					
NFIP – Community Rating System					
Floodplain Regulations					
Floodplain Management Plan					
Zoning Regulations					

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Subdivision Regulations					
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)					
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance					
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation					
Building Code					
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)				
Planners or engineers (with natural and/or human caused hazards knowledge)				
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)				
Emergency Manager				
Floodplain Manager				
Land Surveyors				
Scientists or staff familiar with the hazards of the community				
Personnel skilled in GIS and/or FEMA's HAZUS program				
Grant writers or fiscal staff to handle large or complex grants	X		Grants	
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming				
Community Development Block Grants (CDBG)				
Special Purpose Taxes				
Gas / Electric Utility Fees				
Water / Sewer Fees				
Stormwater Utility Fees				
Development Impact Fees				
General Obligation, Revenue, and/or Special Tax Bonds				
Partnering Arrangements or Intergovernmental Agreements				
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification				
StormReady certification				
Natural disaster or safety related school programs				
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)				
Public-private partnership initiatives addressing disaster-related issues				
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.				
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability	X		
Administrative and Technical Capability	X		
Financial Capability	X		
Education and Outreach	X		

Manheim Area Water and Sewer Authority

Manheim Central School District

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com) by Friday, November 15

Jurisdiction: Manheim Central School District

Name/Title of Individual Completing Worksheet: Amy Flannery, Assistant Superintendent

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Yes	
Dam Failure	Low	Yes	
Drought	Medium	Yes	
Earthquake	Low	Yes	
Environmental Hazards: Gas and Pipeline	Medium	Yes	
Environmental Hazards: Hazardous Materials	Medium	Yes	
Flood, Flash Flood, Ice Jam	High	Yes	
Hailstorm	Medium	Yes	
Invasive Species	Medium	Yes	
Nuclear Incident	Medium	Yes	
Pandemic and Infectious Disease	Medium	Yes	
Radon Exposure	High	Yes	
Subsidence, Sinkhole	High	Yes	
Substance Use Disorder and Mental Health	Medium	Yes	
Terrorism	Medium	Yes	
Tornado, Windstorm	Medium	Yes	
Transportation Accident	High	Yes	
Utility Interruption	High	Yes	
Wildfire	Medium	Yes	
Winter Storm	Medium	Yes	

Manheim Township School District

Octara Area School District

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com) by Friday, November 15

Jurisdiction: Octorara Area School District

Name/Title of Individual Completing Worksheet: R. Scott Domowicz, CFO

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High		
Dam Failure	Low		
Drought	Medium		
Earthquake	Low		
Environmental Hazards: Gas and Pipeline	Medium		
Environmental Hazards: Hazardous Materials	Medium		
Flood, Flash Flood, Ice Jam	High	Low	We sit at the highest elevation to surrounding areas with no flowing bodies of water
Hailstorm	Medium		
Invasive Species	Medium		
Nuclear Incident	Medium		
Pandemic and Infectious Disease	Medium		
Radon Exposure	High		
Subsidence, Sinkhole	High		
Substance Use Disorder and Mental Health	Medium		
Terrorism	Medium		
Tornado, Windstorm	Medium		
Transportation Accident	High		
Utility Interruption	High		
Wildfire	Medium		
Winter Storm	Medium		

Penn Manor School District

Hazard Identification and Risk Evaluation Worksheet

Name: Philip Gale **Title:** Superintendent of Schools

Jurisdiction: Penn Manor SD **Email:** Philip.gale@pennmanor.net

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	NC	
Radon Exposure	NC	
Subsidence and Sinkholes	I	Sinkholes opened at a school twice in two years
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- X☐ Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

The district closely monitors the cyber attacks on the district. We have several attacks that have cause disruptions.

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Philip Gale | Title: Superintendent of Schools

Jurisdiction: Penn Manor SD | Email: Philip.gale@pennmanor.net

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	Goal is appropriate
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	Goal is appropriate
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	Goal is appropriate
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goals and Objectives		Comments
Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	Goal is appropriate
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.						
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.						
LC-3	Action 3	Elevate structures at risk of flooding.						
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.						
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.						
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.						
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.						
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.						
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.						
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.						

Capability Assessment Survey

Name: Philip Gale **Title:** Superintendent of Schools

Jurisdiction: Penn Manor SD **Email:** Philip.gale@pennmanor.net

Phone Number: 717-872-9500

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**X**	**9/1/2023**		**County EMA**	
Emergency Operations Plan	**X**	**9/2023**		**County EMA**	
Disaster Recovery Plan	**X**	**9/2023**		**County EMA**	
Evacuation Plan	**X**	**9/2023**		**County EMA**	
Continuity of Operations Plan					
NFIP					
NFIP – Community Rating System					
Floodplain Regulations					
Floodplain Management Plan					
Zoning Regulations					

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Subdivision Regulations					
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)					
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance					
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation					
Building Code					
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)				
Planners or engineers (with natural and/or human caused hazards knowledge)				
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)				
Emergency Manager				
Floodplain Manager				
Land Surveyors				
Scientists or staff familiar with the hazards of the community				
Personnel skilled in GIS and/or FEMA's HAZUS program				
Grant writers or fiscal staff to handle large or complex grants				
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming				
Community Development Block Grants (CDBG)				
Special Purpose Taxes				
Gas / Electric Utility Fees				
Water / Sewer Fees				
Stormwater Utility Fees				
Development Impact Fees				
General Obligation, Revenue, and/or Special Tax Bonds				
Partnering Arrangements or Intergovernmental Agreements				
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification				
StormReady certification				
Natural disaster or safety related school programs				
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)				
Public-private partnership initiatives addressing disaster-related issues				
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.				
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability	X		
Administrative and Technical Capability	X		
Financial Capability	X		
Education and Outreach	X		

Penn State Health

Pequea Valley School District

Solanco School District

Hazard Identification and Risk Evaluation Worksheet

Name: Robert Dangler **Title:** Assistant Superintendent

Jurisdiction: Solanco School District **Email:** robert_dangler@solancosd.org

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	NC	
Earthquake	NC	
Flood, Flash Flood, Ice Jam	NC	
Hailstorms	NC	
Invasive Species	NC	
Pandemic	NC	
Radon Exposure	NC	
Subsidence and Sinkholes	NC	
Tornado and Windstorm	NC	
Wildfire	NC	
Winter Storm	NC	
Human-Caused Hazards		
Dam Failure	NC	
Environmental Hazards (Hazmat)	NC	
Nuclear Incidents	NC	
Transportation Accidents	NC	
Utility Interruption	NC	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- X Building and Structure Collapse
- X Civil Disturbance
- X Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- X Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Capability Assessment Survey

Name: Robert Dangler **Title:** Assistant Superintendent

Jurisdiction: Solanco School District **Email:** robert_dangler@solancosd.org

Phone Number:

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**X**	**9/2023**		**Lanc. County EMA**	**Available for school community ONLY, not community at large**
Emergency Operations Plan	**X**	**9/2023**		**Lanc. County EMA/Solanco SD**	**Available for school community ONLY, not community at large**
Disaster Recovery Plan					
Evacuation Plan	**X**	**9/2023**		**Lanc. County EMA/Solanco SD**	**Available for school community ONLY, not community at large**
Continuity of Operations Plan	**X**	**9/2023**		**Lanc. County EMA/Solanco SD**	**Available for school community ONLY, not community at large**
NFIP					
NFIP – Community Rating System					
Floodplain Regulations					
Floodplain Management Plan					

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
Zoning Regulations					
Subdivision Regulations					
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)					
Open Space Management Plan (or Parks/Rec or Greenways Plan)					
Stormwater Management Plan / Ordinance					
Natural Resource Protection Plan					
Capital Improvement Plan					
Economic Development Plan					
Historic Preservation Plan					
Farmland Preservation					
Building Code					
Fire Code					
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)		X		
Planners or engineers (with natural and/or human caused hazards knowledge)		X		
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)		X		
Emergency Manager		X		
Floodplain Manager		X		
Land Surveyors		X		
Scientists or staff familiar with the hazards of the community		X		
Personnel skilled in GIS and/or FEMA's HAZUS program		X		
Grant writers or fiscal staff to handle large or complex grants		X		
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming		X		
Community Development Block Grants (CDBG)		X		
Special Purpose Taxes		X		
Gas / Electric Utility Fees		X		
Water / Sewer Fees		X		
Stormwater Utility Fees		X		
Development Impact Fees		X		
General Obligation, Revenue, and/or Special Tax Bonds		X		
Partnering Arrangements or Intergovernmental Agreements		X		
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification		X		
Natural disaster or safety related school programs	X		Superintendent/Asst. Superintendent	
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)		X		
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		X		
Other				

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability	X		
Administrative and Technical Capability	X		
Financial Capability	X		
Education and Outreach			X

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Robert Dangler

Title: Assistant Superintendent

Jurisdiction: Solanco School District

Email: robert_dangler@solancosd.org

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goals and Objectives		Comments
Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.			X			*As a school district we do not have direct involvement in these specific initiatives.*
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.			X			
LC-3	Action 3	Elevate structures at risk of flooding.			X			
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.			X			
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.			X			
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.			X			
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.			X			
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.			X			
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.			X			

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.			X			

Warwick
School District

Hazard Identification and Risk Evaluation Worksheet

Name: Dr. Steve Szobocsan **Title:** Assistant Superintendent

Jurisdiction: Warwick School District **Email:** sszobocsan@warwicksd.org

PART I

Identified Hazards 2019 HMP	How has the frequency of occurrence, magnitude of impact, and/or geographic extent changed in your community? *NC = No Change; I = Increase; D = Decrease* *(Please provide an explanation for any hazards marked I or D in the "Additional Comments" column)*	Additional Comments
Natural Hazards		
Drought	No Change	
Earthquake	No Change	
Flood, Flash Flood, Ice Jam	No Change	No buildings in flood plain
Hailstorms	No Change	
Invasive Species	No Change	
Pandemic	Decrease- since 2020	
Radon Exposure	No Change	
Subsidence and Sinkholes	No Change	We continue to have and work through minor sinkhole issues.
Tornado and Windstorm	No Change	
Wildfire	No Change	
Winter Storm	No Change	
Human-Caused Hazards		
Dam Failure	No Change	
Environmental Hazards (Hazmat)	No Change	We continue to monitor the train traffic for Kenvue facility North of WMS.
Nuclear Incidents	No Change	
Transportation Accidents	No Change	
Utility Interruption	No Change	

PART II

Other Hazards:

Do any of the following hazards (not previously profiled in the County's hazard mitigation plan) have the potential to affect your municipality significantly? If so, please check the box(es) below.

Natural

- ☐ Coastal Erosion
- ☐ Extreme Temperature
- ☐ Hurricane, Tropical Storm, Nor'easter
- ☐ Landslide
- ☐ Lightning Strike

Human-Caused

- ☐ Building and Structure Collapse
- ☐ Civil Disturbance
- X Cyber Terrorism
- ☐ Environmental Hazards – Coal Mining
- ☐ Environmental Hazards – Conventional Oil/Gas Wells
- ☐ Environmental Hazards – Gas and Liquid Pipelines
- ☐ Environmental Hazards – Unconventional Oil/Gas Wells
- ☐ Levee Failure
- ☐ Mass Food/Animal Feed Contamination
- ☐ Opioid Addiction
- ☐ Terrorism
- ☐ Urban Fire/Explosion

Additional Comments:

Cyber Terrorism is an area that we continue to monitor as a District. Our systems contain a lot of personal information for staff, students, and their families. This is an area that our technology department is evaluating regularly. We have a number of protections already in place and we will continue to moving forward.

Mitigation Strategy 5-Year Mitigation Plan Review

Name: Dr. Steve Szobocsan | Title: Assistant Superintendent

Jurisdiction: Warwick School District | Email: sszobocsan@warwicksd.org

Purpose: To fulfill the requirement that maintenance of the hazard mitigation plan (HMP) has been completed since the publication of the original or previous version, and to obtain early feedback from the planning team to incorporate into the update process.

Instructions: Complete the *Goal and Objective Review Worksheet* and *Mitigation Action Plan Review Worksheet* on the next pages keeping the following questions in mind:

- Do the goals, objectives, and actions address current and expected conditions?
- Should each goal be carried forward into the updated plan? Should a goal be changed based on current conditions in the community? Should a goal be discontinued, and if so, why?
- What is the status of each action? What progress has been made? Should an action be continued in the updated plan? Should an action be discontinued, and if so, why?
- Has the nature or magnitude of hazard risk changed?
- Are current resources adequate to implement the plan?
- Should additional local resources be committed to address identified hazard threats?
- Are there any issues that have limited the current implementation schedule?
- Have the implementation of identified mitigation actions resulted in expected outcomes?
- Has the Steering Committee measured the effectiveness of completed hazard mitigation projects in terms of specific dollar losses avoided?
- Did the jurisdictions, agencies, and other partners participate in the plan implementation process as proposed?
- Are there other concerns that should be identified?

Before completing the worksheets, the group may wish to discuss the above questions in a round-robin format, using a flip chart. The questions are standard; however it is important to check the existing HMP maintenance section for additional questions that may need to be considered.

Goal and Objective Review Worksheet

Instructions: Write each goal and objective identified in the existing hazard mitigation plan. Use the comment boxes to provide feedback or to suggest modification of any of the proposed goals or objectives. You may suggest additional objectives below each goal, or new goals and objectives on the last page of this exercise.

Goals and Objectives		Comments
Goal 1	Prevent injury/death and damage from natural and human-made hazards in Lancaster County.	We maintain an All Hazards Plan to address the situations that may impact any of our schools. We also regularly practice safety drills (monthly) with our students at staff at each building throughout the district.
Objective 1.1	Develop regulations limiting development in hazard-prone areas.	
Objective 1.2	Direct growth in designated growth areas away from hazard-prone areas, and maintain natural hazard buffers in the County.	
Objective 1.3	Lessen impacts on natural resources from natural and human-caused hazards.	
Goal 2	Protect the citizens of Lancaster County as well as public and private property from the impacts of natural and human-caused hazards.	Our All Hazards Plan addresses a number of these objectives. However, our involvement with stormwater management is only evaluated when we do building projects. These evaluations are done by 3rd-party engineers that we hire for the specific projects. For example, our current high school renovation involves RLPS and numerous other professionals.
Objective 2.1	Protect existing structures, including critical facilities, from damage that can be caused by hazards.	
Objective 2.2	Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas.	
Objective 2.3	Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas.	
Objective 2.4	Improve and maintain stormwater management systems to reduce backup and flooding.	
Objective 2.5	Protect the health of County residents from disease.	
Goal 3	Improve emergency services and capabilities in Lancaster County to protect citizens from natural and human-caused hazards.	Chief Shumaker and Officer Sheppard communicate regularly with all emergency personnel offices who support our buildings throughout the district. This includes law enforcement, fire, and EMS services.
Objective 3.1	Improve coordination and communication between departments.	
Objective 3.2	Ensure adequate training and resources for those involved in emergency response, services, relief, or hazard mitigation.	
Objective 3.3	Ensure adequacy of equipment and technology.	

Goals and Objectives		Comments
Goal 4	Increase public education and awareness of existing and potential hazards in Lancaster County.	Chief Shumaker and Officer Sheppard attend and participate in all applicable trainings provided by the County.
Objective 4.1	Develop public education and outreach programs on hazards and hazard mitigation.	
Objective 4.2	Educate property owners in hazard risk areas regarding their risks and the precautions they can take.	
Objective 4.3	Encourage residents to implement hazard mitigation and preparedness measures on their properties.	
Objective 4.4	Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP).	
Objective 4.5	Encourage local participation in the Community Rating System (CRS) Program.	

Suggested Additional Goals and/or Objectives		Comments
Goal		
Objective		**We do not have any at this time.**
Objective		
Objective		

Goal		
Objective		
Objective		
Objective		

Mitigation Action Plan Review Worksheet

Instructions: List each mitigation action from the existing hazard mitigation plan and identify its status as "No Progress / Unknown," "In Progress / Not Yet Complete," "Continuous," "Completed," or "Discontinued." Include review comments for each action.

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-1	Action 1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.	X					
LC-2	Action 2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.	X					
LC-3	Action 3	Elevate structures at risk of flooding.	X					
LC-4	Action 4	Acquire repetitive loss properties to convert them to open space.	X					
LC-9	Action 5	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.		X				We are currently working with the Lititz Borough regarding land next to RR tracks.
LC-14	Action 6	Develop a hazard information page on the County website, and link from each municipality's website.	X					
LC-15	Action 7	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.	X					
LC-16	Action 8	Encourage homeowners to install appropriate devices to alleviate radon concentrations within homes.	X					

Existing Mitigation Action			Status					Review Comments
			No Progress/ Unknown	In Progress/ Not Yet Complete	Continuous	Completed	Discontinued	
LC-17	Action 9	Provide information to the public about the dangers of radon exposure.	X					
LC-19	Action 10	Enforce building codes, floodplain management ordinances, and other local regulations to protect new structures constructed in hazard-prone areas.	X					

Capability Assessment Survey

Name: Dr. Steve Szobocsan **Title:** Assistant Superintendent

Jurisdiction: Warwick School District **Email:** sszobocsan@warwicksd.org

Phone Number: 717-626-3700 ext. 3758

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. Finally, please provide additional comments or explanations in the space provided.

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop-ment		
EXAMPLE: Hazard Mitigation Plan	X	1/1/2008		County EMA	Interim update in 2008 revised mitigation strategy; completed one action.
Hazard Mitigation Plan	**X**	**11/14/23**		**WSD**	**We have an All Hazards plan that contains our plan for Hazard Mitigation.**
Emergency Operations Plan	**X**	**11/14/23**		**WSD**	**We have an All Hazards plan that contains our plan for Hazard Mitigation.**
Disaster Recovery Plan	**X**	**11/14/23**		**WSD**	**We have an All Hazards plan that contains our plan for Hazard Mitigation.**
Evacuation Plan	**X**	**11/14/23**		**WSD**	**We have an All Hazards plan that contains our plan for Hazard Mitigation.**
Continuity of Operations Plan	**X**	**11/14/23**		**WSD**	**We have an All Hazards plan that contains our plan for Hazard Mitigation.**
NFIP	**N/A**				
NFIP – Community Rating System	**N/A**				
Floodplain Regulations	**N/A**				
Floodplain Management Plan	**N/A**				

Tool / Program	Status			Dept./Agency Responsible	Comments
	In Place	Date Adopted or Updated	Under Develop -ment		
Zoning Regulations	**N/A**				
Subdivision Regulations	**N/A**				
Comprehensive Land Use Plan (or General, Master, or Growth Mgt. Plan)	**N/A**				
Open Space Management Plan (or Parks/Rec or Greenways Plan)	**N/A**				
Stormwater Management Plan / Ordinance	**N/A**				
Natural Resource Protection Plan	**N/A**				
Capital Improvement Plan	**X**	**Annually**		**Warwick School District**	**We have a building and property committee that meets monthly to discuss and plan for capital improvements throughout the school district.**
Economic Development Plan	**N/A**				
Historic Preservation Plan	**N/A**				
Farmland Preservation	**N/A**				
Building Code	**N/A**				**We follow the building codes that are established locally for us.**
Fire Code	**N/A**				**We follow the fire codes that are established locally for us.**
Other					

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)		X		
Planners or engineers (with natural and/or human caused hazards knowledge)		X		
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)	X		Mr. Jeff Weber is our Director of Buildings and Grounds.	
Emergency Manager	X		Chief Thomas Shumaker oversees these plans for WSD.	
Floodplain Manager		X		
Land Surveyors		X		
Scientists or staff familiar with the hazards of the community		X		
Personnel skilled in GIS and/or FEMA's HAZUS program		X		
Grant writers or fiscal staff to handle large or complex grants		X		
Other				

3. **Financial Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for state or federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming		X		
Community Development Block Grants (CDBG)		X		
Special Purpose Taxes		X		
Gas / Electric Utility Fees		X		
Water / Sewer Fees		X		
Stormwater Utility Fees		X		
Development Impact Fees		X		
General Obligation, Revenue, and/or Special Tax Bonds		X		
Partnering Arrangements or Intergovernmental Agreements		X		
Other				

4. **Education and Outreach:** Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Then, identify the primary department or agency responsible for its administration or allocation and provide any additional comments you may have in the space provided or with attachments.

Program/Organization	Yes	No	Department/Agency	Comments
Firewise Communities Certification		X		
StormReady certification		X		
Natural disaster or safety related school programs		X		We do not have a program but we do monthly trainings/practices at each of our buildings throughout the district.
Ongoing public education or information program (e.g. responsible water use, fire safety, household preparedness, environmental education)		X		
Public-private partnership initiatives addressing disaster-related issues		X		
Local citizen groups or nonprofit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		X		
Other		X		

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate, or High) based on best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability	X		
Administrative and Technical Capability	X		
Financial Capability	X		
Education and Outreach	X		

Complete this worksheet and return to Jessica Stokes (jessica.stokes@tetratech.com)

Jurisdiction: Warwick School District

Name/Title of Individual Completing Worksheet: Thomas Shumaker, Safety Coordinator

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. Probability: What is the likelihood of the hazard occurring in a given year?
2. Impact: In terms of injuries, damage, or death, is it anticipated that the impacts would be minor, limited, critical or catastrophic?
3. Spatial Extent: how large of an are could be impacted by a hazard event? Are impacts localized or regional?
4. Warning Time: Is there usually some lead time associated with the hazard? Have warning measures been implemented?
5. Duration: How long does the hazard event usually last?

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for Lancaster County. Please review the calculated rankings and indicate whether you believe your jurisdiction has the same calculated risk as the County. If you are changing the ranking, please provide detail as to why you are changing the ranking.

Continued on next page.

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazard Ranking

Hazard	County Ranking	Does your jurisdiction have the same hazard risk as the County (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Cyber Incident	High	Y	
Dam Failure	Low	Y	
Drought	Medium	Y	
Earthquake	Low	Y	
Environmental Hazards: Gas and Pipeline	Medium	Y	
Environmental Hazards: Hazardous Materials	Medium	Y	
Flood, Flash Flood, Ice Jam	High	N - Low	No immediate flood zones of concern
Hailstorm	Medium	Y	
Invasive Species	Medium	Y	
Nuclear Incident	Medium	Y	
Pandemic and Infectious Disease	Medium	Y	
Radon Exposure	High	N - Medium	We have no data to support a high ranking for the district
Subsidence, Sinkhole	High	N - Medium	Some minor sink holes reported in the past
Substance Use Disorder and Mental Health	Medium	Y	
Terrorism	Medium	Y	
Tornado, Windstorm	Medium	Y	
Transportation Accident	High	N - Medium	We have limited traffic exposure
Utility Interruption	High	N - Medium	Power interruption has not been an issue in the past
Wildfire	Medium	Y	
Winter Storm	Medium	Y	

Complete this worksheet to update your mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop. If your municipality needs more time, please provide the date you will return the worksheet (within the next 2 weeks) to Tetra Tech.

Municipality: Warwick School District

Name/Title of Individual Completing Worksheet: Thomas Shumaker, Safety Coordinator

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. For the Lancaster County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Hazard	
Cyber Incidents	Pandemic and Infectious Disease
Dam Failure	Radon Exposure
Drought	Subsidence/Sinkholes
Earthquake	Substance Use Disorder
Gas and Liquid Pipelines	Terrorism
Hazardous Materials Releases	Tornado/Windstorm
Flood/Flash Flood/Ice Jams	Transportation Accidents
Hailstorms	Utility Interruption
Invasive Species	Wildfire
Nuclear Incidents	Winter Storm

During today's workshop, we will review our actions from the previous plan, update our carryover actions, and identify new actions. As you identify problems, consider a variety of action types that could be used to mitigate the problem including structural, plans and regulations, education and outreach, and natural systems protections. All actions will need to include detailed problems and solutions in order to meet FEMA's expectations.

NEW ACTION DEVELOPMENT

Consider the information gathered to date from the capability assessment, the risk assessment, and other input you have received from the public or other staff. Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions. ***Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!*** These actions may be carryover actions from the previous pages or from new actions identified below. Once you have met the minimum requirement, our goal will be quality over quantity! Provide as much detailed information in the solution as you have available including:

- Phases of the action
- Design specifications
- Lead and supporting agencies
- Estimated costs
- Timeline
- Any identified funding sources

IMPORTANT: Review Your Proposed Actions and Hazards of Concern

→ FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern.

→ Review your carryover actions from the previous plan and the new actions that you have identified above.

→ If you do not have at least one action that addresses each individual hazard of concern between these two sections, fill out additional problems and solutions for new actions to meet this requirement.

Examples

Problem	Solution	Hazard(s) Addressed
The Public Works facility, located at 123 Main Street, is identified as a critical facility and lifeline for the jurisdiction. The facility does not have a back-up generator to maintain continuity of operations during an emergency event.	The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for an emergency generator for the Public Works facility. Once identified, Public Works will have the emergency generator installed at its facility at 123 Main Street. Public Works will be responsible for maintaining the emergency generator.	Cyber Incidents, Drought, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.	The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan. This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm

Capability Assessment / Integration

If you have noted moderate or weak capabilities to address specific hazards, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (ex: strengthened ordinances, new emergency or land development plans, training for staff, equipment for response, etc.)

Table 1. Capability Assessment/Integration Problems and Solutions

Problem	Solution	Hazard(s) Addressed
N/A		

Critical Facilities/Community Lifelines - Backup Power

Please list critical facilities/community lifelines that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Table 2. Critical Facilities/Community Lifelines Problems and Solutions

Problem	Solution	Hazard(s) Addressed
N/A		

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Table 3. Culverts and Stormwater Infrastructure Problems and Solutions

Problem	Solution	Hazard(s) Addressed
N/A		

Flood Protection

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.). If you have repetitive loss properties but have not identified the approach(es) you will take to mitigate these properties long term, it is recommended that you also include an action to develop a repetitive loss mitigation plan to fully analyze the long term impacts of mitigation (potential reduction in tax base due to acquisitions, maintaining acquired properties, issues with future evacuation orders not being followed due to elevation projects, necessary maintenance of infrastructure and critical facilities in elevated neighborhoods, etc.)

Table 4. Flood Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
N/A		

Critical Community Lifeline and Infrastructure Protection

Critical community lifelines provide fundamental services in the community before, during, and after a hazard event. Efforts to mitigate these facilities are key to building resilience. During the risk assessment, the following lifelines were identified as being located in hazard areas. In addition to these facilities, identify additional facilities, roads, and infrastructure that need protection from the hazards of concern. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.).

Table 5. Critical Community Lifeline Protection Problems and Solutions

Problem	Solution	Hazard(s) Addressed
N/A		

Socially Vulnerable Population Support

Mitigation actions identified for your community should include actions that benefit underserved communities and socially vulnerable populations. Please identify potential problems and solutions that address the needs of these groups and how to be better protect them from hazard events.

Table 6. Socially Vulnerable and Underserved Communities Problems and Solutions

Problem	Solution	Hazard(s) Addressed
N/A		

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Table 7. Outreach and Awareness Problems and Solutions

Problem	Solution	Hazard(s) Addressed
N/A		

Other Projects

Additionally, please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Table 8. Other Problems and Solutions

Problem	Solution	Hazard(s) Addressed
Sinkholes	Continued monitoring and repair	Continued monitoring and repair

Well Span Health

APPENDIX E. PUBLIC AND STAKEHOLDER DOCUMENTATION

Appendix E includes meeting invitations, documentation of outreach to stakeholders, and other information related to public and stakeholder outreach conducted during the development of the Lancaster County Hazard Mitigation Plan.

School Districts	
b_troop@easdpa.org	karen_nell@etownschools.org
brian_bliss@solancosd.org	axer@manheimcentral.org
dan.forry@pennmanor.net	flannerya@manheimcentral.org
cheryl_irwin-bass@hempfieldsd.org	sleever@octorara.org
marilyn_martin@conestogavalley.org	philip.gale@pennmanor.net
emusser@cocalico.org	rich_eby@pequeavalley.org
erik_orndorff@pequeavalley.org	robert_dangler@solancosd.org
feltyro@mtwp.net	Stephen_Melnyk@cocalico.org
flip_steinour@iu13.org	Tabetha_Haldeman@cocalico.org
h_albert@easdpa.org	almelendez@columbiabsd.org
k_reichard@easdpa.org	don_mann@conestogavalley.org
monica_miller@solancosd.org	jill_koser@conestogavalley.org
kevin_peart@l-spioneers.org	gregory.kiehl@donegalsd.org
mark.heckaman@donegalsd.org	nadine_larkin@elanco.org
gregory.kiehl@donegalsd.org	daphne_kirkpatrick@etownschools.org
michael_snopkowski@elanco.org	richard_hornberger@easdpa.org
mike_bromirski@hempfieldsd.org	tab_musser@hempfieldsd.org
neal_walsh@elanco.org	doug_dandridge@hempfieldsd.org
oberlebe@mtwp.net	andrew_godfrey@l-spioneers.org
richard_schwarzman@etownschools.org	llnichols@sdlancaster.org
robert_hollister@elanco.org	reimanda@mtwp.net
stephen_halstead@iu13.org	flannerya@manheimcentral.org
sue_smith@etownschools.org	krista.cox@pennmanor.net
william_gleason@hempfieldsd.org	rich_eby@pequeavalley.org
communications@sdlancaster.org	monica_miller@solancosd.org
arizzo@columbiabsd.org	sszobocsan@warwicksd.org
r_giffing@conradweiser.org	stephen_halstead@iu13.org
nadine_larkin@elanco.org	robert_dangler@solancosd.org
sdomowicz@octorara.org	monica_miller@solancosd.org
sue_smith@etownschools.org	

Higher Education	Surrounding Counties
paul.hill@millersville.edu	gverna@lcdes.org
william.mchale@fandm.edu	cfisher@dauphincounty.gov
rwegman@lbc.edu	SHKreiser@YorkCountyPA.gov
dfreiler@pcad.edu	pssalamone@countyofberks.com
lancasterpublicsafety@hacc.edu	wmesserschmidt@chesco.org
security@etown.edu	Wayne.Tome@ccdps.org
security@stevenscollege.edu	raayers@harfordpublicsafety.org

Planning Team

shcino@lancastercountypa.gov
ChristopherThompson@lancasterconservation.org
CDelong@cityoflancasterpa.gov
kdesantis@lancasterchamber.com
KNiehaus@lancastercountypa.gov
dgarber@easthempfield.org
jessica.stokes@tetratech.com
BHerskowitz@lancastercountypa.gov
vdestefano@eastpetersburgborough.org
BGoodling@lancastercountypa.gov

Social Service Providers

jnaples@lchra.com
bdegoede@lchra.com
jeby@lchra.com
kmcdevitt@mhalancaster.org
espinosa-vargas@uwlanc.org
mpjohnson@cwsglobal.org
lindsay.pringle@pennmedicine.upenn.edu
pmcfarling@lcfoodhub.org
info@sacapa.org
lititzseniorcenter@gmail.com
ywca@ywcalancaster.org
sangreyr@lancastercountypa.gov
jrlopez@sacapa.org
vphilbert@caplanc.org
andrew@llhfh.org
snauman@wearetenfold.org
sblake@ywcalancaster.org
rhelwig@cwsglobal.org

County Commissioners

bpasquale@lancastercountypa.gov
cpeddigree@lancastercountypa.gov
georgel@lancastercountypa.gov
jepfursich@lancastercountypa.gov
jparsons@lancastercountypa.gov
alyoder@lancastercountypa.gov
mfitzpatrick@lancastercountypa.gov
rdagostino@lancastercountypa.gov

Sewer and Water Authorities

nzimmerman@earltwp.com
cheryl@mdjasewer.com
nzimmerman@earltwp.com
MPalm@adamstownborough.org
dstine@ptd.net
jrf@newhollandborough.org
mross@nlcaonline.com
manager@westearltwp.org
fehowe@leacocktwp.com
manager@penntwplanco.org
office@quarryvilleborough.com
sued@akron-pa.com
molchany@akron-pa.com
bwa17502@gmail.com
christianaboro@comcast.net
bruce@claytwp.com
ssinopoli@conoytownship.org
Mhession@denverboro.net
SCarl@ECocalicoTWPAuth.com
dbecker@etown-water.com
rdenlinger@etownonline.com
Nick@ersapa.com
nharris@ephrataborough.org
nharris@ephrataboro.org
ssawyer@ptd.net
gasabilling@comcast.net
sbarry@lititzborough.org
sbarry@lititzborough.org
cheisey@mawsa.org
joe@mountjoypa.org
paradise.manager@comcast.net
info@sadsburytownshiplancaster.org
echterns@strasburgboro.org
JBunch@warwicktownship.org
office@weaverlandvalleyauthority.org
wcocalico@gmail.com
manager@westearltwp.org
dlewis@columbiawater.net
steveehwater@comcast.net
mkyle@lasa.org
scampbell@cityoflancasterpa.com
rkane@manheimtownship.org
DonahueTC@cdmsmith.com
mmorris@ultwp.com

Municipal EMCs

gleisey12@gmail.com
BartEMC@comcast.net
duane@leinbachelectric.com
rjweir01@gmail.com
alext0616@yahoo.com
zepinc@windstream.net
cwk@epix.net
jbarninger@columbiapa.net
Kevinhertzog73@gmail.com
wsouthard50@gmail.com
dylanlgetz@gmail.com
rjweir01@gmail.com
scott@hacheyconstruction.com
pcastline@comcast.net
rjweir01@gmail.com
ehtema@easthempfield.org
elt_emc@eltwp.org
edentwpemc@comcast.net
starden0103@aim.com
emacoordinator@mtjoytwp.org
EphrataOEM@ephrataboro.org
bhoward@ultwp.com
swampthing46@aol.com
cdelong@cityoflancasterpa.gov
bfassnacht@lancastercountypa.gov
jhouser@leacocktwp.com
dober@warwicktownship.org

oakhillhtl@prodigy.net
manheimregionalema@outlook.com
slittle@manheimtownship.org
dhagelgans@comcast.net
MariettaEMA@comcast.net
awilliams1169@gmail.com
dhagelgans@comcast.net
pacolvin@gmail.com
emacoordinator@mtjoytwp.org
jrf@newhollandborough.org
devonshB@lancastercountypa.gov
manheimregionalema@outlook.com
awilliams1169@gmail.com
jherr@lcwc911.us
jherr@lcwc911.us
lshenk@nwems86.org
jkennedy@lanchesterconstable.com
echterns@strasburgpd.org
echterns@strasburgpd.org
rjweir01@gmail.com
bhoward@ultwp.com
dober@warwicktownship.org
dennisschmeck@lezzer.com
emacoordinator@mtjoytwp.org
bhoward@ultwp.com
manager@westhempfield.org
emergencycoordinator@westlampeter.com

Law Enforcement

bearingerc@quarryvillepd.org
brommerj@columbiapd.org
bwiczkowski@westlampeterpolice.com
clearyc@manorpd.org
cmckim@ephratapd.org
cunninge@etownpolice.org
echterns@strasburgpd.org
ehiggins@westearlpd.org
graefft@manorpd.org
j.stauffer@manheimpolice.org
jeschmidt@pa.gov
jrochat@police.millersvilleborough.org
jschofield@warwicksd.org
keppleyd@ectpd.org

kerry.nye@lititzpd.org
kmccarthysr@eastearlpolice.org
laydenl@whtpd.org
leightyw@newhollandpd.org
maurice.williams@mjbpd.org
michenerj@pequeatownshippd.org
mmayberry@nwrpd.org
peter.anders@millersville.edu
rudzinskit@manheimtownshippolice.org
skiless@ehpd.org
steffend@nlcrpd.org
stephen_halstead@iu13.org
william.mchale@fandm.edu
wintersm@lancasterpolice.com
zerbes@eltpolice.org

Municipal

SToffy@adamstownborough.org	rmcfadden@lititzborough.org
molchany@akron-pa.com	lbt@littlebritain.org
barttwp@comcast.net	jimfisher@manheimboro.org
cmartin@brecknocktownship.us	rkane@manheimtownship.org
Christianaboro@comcast.net	manager@manortwp.org
bruce@claytwp.com	julie@boroughofmarietta.com
gcarter@colerain.org	MarticTwp@comcast.net
mstivers@columbiapa.net	millersville@millersvilleborough.org
tom.grassel@conestogatwp.com	manager@mountjoypa.org
ssinopoli@conoytownship.org	ryan@mtjoytwp.org
Mhession@denverboro.net	info@mountvilleborough.com
defarmalls@gmail.com	paradise.manager@comcast.net
office@earltwp.com	office@pequeatwp.org
manager@ect.town	vicki@providencetownship.com
jeff@eastdonegaltwp.com	office@quarryvilleborough.com
jMuckle@eastearltwp.org	manager@raphotownship.com
manager@easthempfield.org	sadsburytownship@comcast.net
rhutchison@eastlampetertownship.org	echterns@strasburgboro.org
edentwp@comcast.net	secretary@strasburgtownship.com
gbutler@elizabethtwppa.com	nkulp@terrehillboro.com
boro@etownonline.com	bharris@warwicktownship.org
nharris@ephrataboro.org	wcocalico@gmail.com
ssawyer@ptd.net	jyoder@wdtwp.com
fultontwp@comcast.net	datadept@westearltwp.org
ticampbell@cityoflancasterpa.gov	manager@westhempfield.org
wlaudien@twp.lancaster.pa.us	rebecca@westlampeter.com

PCH and Assisted Living

jplank@acadiarehab.com	mstoltzfus@gardenspotvillage.org	tjohnson@livecardinal.com
todde@bv.org	admin@gardensstevens.com	aeby@livecardinal.com
krogers@calvaryhomes.org	david@thegroveshome.net	ohohChristinaB@gmail.com
marycater@gmail.com	m.melissaorr@gmail.com	lprevost@paramountsl.net
cschober@countryviewmanor.com	twinder@hvillage.org	ggaissert@pvcommunities.org
lhaggarty@elizabethtownhcc.com	mglover@keystonevillaatephrata.com	jperry@prov-place.com
jcraft@emeraldhcc.com	mmiller3@landis.org	rineerd@quarryville.com
hbrand@ucc-homes.org	roy.evans@legendseniorliving.com	rrmanor@outlook.com
john@evergreenestatesrc.com	amanda.diehl@legendseniorliving.com	ashley.creek@stannesrc.org
johnb@fairmounthomes.org	dwhite@masonicvillages.org	hdennis@luthercare.org
hyoder@faithfriendship.org	dmortensen@mennonitehome.org	tdennis@uzrc.org
zoraida@faithfuliving.com	vivianngreinhart@yahoo.com	gnvineyard@gmail.com
sweikel@psl.org	smancini@zerbesisters.com	mfrey@landis.org
nrineer@luthercare.org	deniseg@moravianmanor.org	acoty@willowvalley.org
magnoliamanor6@gmail.com	jlee@integracare.com	mdonegan@willowvalley.org

EMS

abyers@svems.org
amarden@pennstatehealth.psu.edu
asstchief10@hotmail.com
bartemc@comcast.net
blacksheep2048@gmail.com
bnagle2@wellspan.org
bob_may@lemsa.com
bob_patterson@lemsa.com
bparks@ptd.net
brandonnye81@yahoo.com
cbuchmoyer@warwickems.org
ccaa521@yahoo.com
cdgossert@yahoo.com
cgleed@lghealth.org
chief37@newhollandambulance.com
dh314emtp@yahoo.com
dmitchell@mtems.org
ecaa@ptd.net
ekline@nwems86.org
ems@fandm.edu
emsmgr@ephrataambulance.org
emtfisher1@yahoo.com
emtles@ptd.net
eppleycapt@gmail.com
fkenavan@warwickems.org
fptville@ptd.net
gehmansb@ptd.net
gly1@ptd.net
greg_arntz@lemsa.com
hcachey@dejazzd.com
jbarclay@maytownedfd.com
jerry_schramm@lemsa.com
jimandash1015@gmail.com
jmumma@nwems86.org
jnewcomer7@wellspan.org
jnmartin87@gmail.com
jonathan43fire@yahoo.com
jsober27@yahoo.com
justin.shultz@gmail.com
lshenk@nwems86.org
mahanpd@hotmail.com
msfitzgibbons@svems.org
mshenk@lcwc911.us
nrodney@fandm.edu
onairam@comcast.net
onehose99@yahoo.com
pzook89@gmail.com
rcaaems1@ptd.net
rdbaier@lghealth.org
rhershey512@gmail.com
richard_pearson@lemsa.com
rkane@manheimtownship.org
rothwd@upmc.edu
rtfcems@dejazzd.com
saachey@dejazzd.com
scottbarr24@gmail.com
seberly@firelineequipment.com
shenk@dejazzd.com
skingsboro@nwems86.org
sryno@comcast.net
stfcemschief49@yahoo.com
ted_burkhart@hotmail.com
tuh01282@temple.edu
vmiller5@wellspan.org
waaems@outlook.com
wecare.ken@gmail.com
wikerfire@verizon.net

Nursing Facilities

todde@bv.org
ktancrell@calvaryhomes.org
jcraft@emeraldhcc.com
lhaggarty@elizabethtownhcc.com
hbrand@ucc-homes.org
johnb@fairmounthomes.org
mstoltzfus@gardenspotvillage.org
admin@gardensstevens.com
rineerd@quarryville.com
twinder@hvillage.org
bdankenbring@kadimahealth.com
mmiller3@landis.org
nrineer@luthercare.org
dmortensen@mennonitehome.org
deniseg@moravianmanor.org
mtornabe@mthopenazarene.org
admin@neffsvillerehab.com
ggaissert@pvcommunities.org
marinellaramos@genesishcc.com
ashley.creek@stannesrc.org
ldwinal@susquehannahc.com
tdennis@uzrc.org
jnye@willowvalley.org
frivera@willowvalley.org
amilburn@zerbesisters.com
sbrightman@maplefarm.org
dwhite@masonicvillages.org
jflinn@rosecitynursing.com

From:	Bowman, Brooke
To:	Subbio, Tony
Subject:	FW: Worksheets for School Districts - County Hazard Mitigation Plan
Date:	Monday, March 18, 2024 7:54:24 AM
Attachments:	image001.png Sent to Public School List.pdf

CAUTION: This email originated from an external sender. Verify the source before opening links or attachments.

Brooke Bowman (She/Her)
Community Resilience Coordinator & Volunteer Liaison
Lancaster Emergency Management Agency

From: Hazard Mitigation Plan
Sent: Monday, March 18, 2024 7:26 AM
Subject: Worksheets for School Districts - County Hazard Mitigation Plan

Good afternoon,

Lancaster County is updating its Hazard Mitigation Plan (HMP). The HMP will analyze the hazards faced by the County and its communities, residents, and businesses, and will identify a strategy for minimizing the vulnerability to these hazards. You can find out more about the HMP and the planning process here: Hazard Mitigation Planning | Lancaster County, PA - Official Website.

As part of our HMP update there are three forms we have for School Districts to fill out and submit. The forms are linked below and are also available on the by visiting the County Website linked above. If you have not done so already, please complete these forms at your earliest convenience and **submit to HMP@lancastercountypa.gov.**

- Hazard Ident and Risk Evaluation
- Capability Assessment Survey
- Mitigation Strategy Review

In addition to filling out the worksheets for School Districts, we encourage all residents and visitors of the County to provide input into the planning process. We have developed a short survey about the County and the risks it faces. We would greatly appreciate it if you would complete the survey and otherwise participate in this important endeavor. The survey can be found here: Lancaster County Hazard Mitigation Plan Update - Public Survey (surveymonkey.com).

Keep an eye out for upcoming Steering Committee meetings. Thank you for your participation

in this planning effort!

Best,
Brooke Bowman

Brooke Bowman (She/Her)
Community Resilience Coordinator & Volunteer Liaison
Lancaster Emergency Management Agency
28 S Charlotte St, Manheim, PA 17545
Phone: 717.664.1340 –Web: www.lancastercountypa.gov/2702

Note: The message and attachment(s) to this email are intended for the use of the individual or entity to which it is addressed, and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, printing or copying of this communication is strictly prohibited. If you received this in error, please contact the sender and delete the original message, any attachment(s) and copies. Thank you for your cooperation.

From: Bowman, Brooke
To: Paulson, Lisa
Cc: Subbio, Tony
Subject: Hazard Mitigation Plan Surveys
Date: Wednesday, May 8, 2024 8:26:20 AM
Attachments: image001.png

CAUTION: This email originated from an external sender. Verify the source before opening links or attachments.

Good morning Lisa,

Lancaster County EMA is currently undergoing our planning process for our Hazard Mitigation Plan. In our plan, we are paying special attention to our vulnerable populations - such as the older adult population. We are distributing a survey to collect data on areas of concern and want to do some targeting to our older adult population.

With your oversight of the Senior Centers, would it be possible to have you share this survey with your center managers to distribute to the participants? Of course, it would be entirely voluntary for participants, but we would love to try and capture some data about our older adult population.

It is traditionally a survey hyperlink online, but we can ask our contractor to make it into a paper document for those who do not have access to technology. The Public Survey and Problem Area Survey can be found here.

Thank you for your consideration! We look forward to finding better ways to conduct emergency plans for the older adult population in our hazard mitigation process.

Best,
Brooke

Brooke Bowman (She/Her)
Community Resilience Coordinator
Lancaster Emergency Management Agency
28 S Charlotte St, Manheim, PA 17545
Phone: 717.664.1340 –Web: www.lancastercountypa.gov/2702

Note: The message and attachment(s) to this email are intended for the use of the individual or entity to which it is addressed, and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, printing or copying of this communication is strictly prohibited. If you received this in error, please contact the sender and delete the original message, any attachment(s) and copies. Thank you for your cooperation.

From: Bowman, Brooke
Subject: HMP Worksheets
Date: Tuesday, January 9, 2024 10:44:28 AM

CAUTION: This email originated from an external sender. Verify the source before opening links or attachments.

Good morning,

Lancaster County is updating its Hazard Mitigation Plan (HMP). The HMP will analyze the hazards faced by the County and its communities, residents, and businesses, and will identify a strategy for minimizing the vulnerability to these hazards. You can find out more about the HMP and the planning process here: Hazard Mitigation Planning | Lancaster County, PA - Official Website.

HMP worksheets are available at: https://lancastercountypa.gov/2899/Hazard-Mitigation-Plan-Worksheets

Jurisdiction specific Mitigation Strategy Review worksheets are posted. Please complete forms under Municipalities along with your jurisdiction specific worksheet.

Best,

Brooke Bowman (She/Her)
Community Resilience Coordinator & Volunteer Liaison
Lancaster Emergency Management Agency
(717) 664-1340
www.lancastercountypa.gov/2702

From:	Kirsten Peachey
To:	barttwp@comcast.net; Bill Laudien; BoardAdmin; Bruce@claytwp.com; Carol Martin; Colerain; colerain@epix.net; Conestoga Township (conestogatownship@gmail.com); Drumore Township (Office@drumoretownship.org); dzimmerman@warwicktownship.org; Earl Township (amartin@earltwp.com); East Donegal Township; East Earl Township; Cindy Schweitzer; edentwp@comcast.net; fehowe@leacocktwp.com; Fulton Township; Jennifer Rabuck; John Yoder; Judith Willig; Kathy Norris; lbt@littlebritain.org; Loren Miller; manager@raphotownship.com; manager@westearltwp.org; Manheim Township (rkane@manheimtownship.org); Manor Township; martictwp@comcast.net; Mike Morris; paradisetown@comcast.net; patricia@mtjoytwp.org; Penn Township; Pequea Township (office@pequeatwp.org); rhutchison@eastlampetertownship.org; ryan@mtjoytwp.org; Sadsbury Township (info@sadsburytownshiplancaster.org); secretary@eastdrumoretownship.org; ssawyer@ptd.net; Vicki Eldridge; Wanda Good; Warwick Township; West Cocalico Township (wcocalico@gmail.com); West Donegal Township (mfoltz@wdtwp.com); West Hempfield Twp. (manager@westhempfield.org); West Lampeter Twp
Cc:	Subbio, Tony; Bowman, Brooke; Ed Fisher; Jeff Burkholder; Ray Marvin (rmarvin@bbsgrocery.com); Scott Russell (srussell@mcmahonassociates.com); Terry Martin
Subject:	Lancaster County- Hazard Mitigation Plan
Date:	Tuesday, May 7, 2024 2:37:43 PM

You don't often get email from kpeachey@salisburytownship.org. Learn why this is important

CAUTION: This email originated from an external sender. Verify the source before opening links or attachments.

On behalf of LCATS, I have been asked to forward the below information about Lancaster County's Hazard Mitigation Plan. Please reach out to Brooke Bowman (copied on this email) if you have any questions!!

Thanks for your participation!

Kirsten Peachey

Salisbury Township
717-768-8059
kpeachey@salisburytownship.org

Lancaster County is updating its Hazard Mitigation Plan (HMP). The HMP will analyze the hazards faced by the County and its communities, residents, and businesses, and will identify a strategy for minimizing the vulnerability to these hazards. You can find out more about the HMP and the planning process here: Hazard Mitigation Planning | Lancaster County, PA - Official Website.

As part of our HMP update there are three forms we have for municipalities to fill out and submit. The forms are linked below and are also available on the by visiting the County Website linked above. Please complete these forms at your earliest convenience and **submit to HMP@lancastercountypa.gov by the end of May.** Completion and submission of the forms, as well as attending stakeholder meetings, will serve as proof of your participation in the planning process. Proof of participation in the planning process is needed for most mitigation related grants.

Hazard Ident and Risk Evaluation
- Capability Assessment Survey
- Local Compliance Checklist NFIP
- Mitigation Strategy Review (countywide)
- Mitigation Strategy Review (jurisdiction-specific, linked on website)

In addition to filling out the worksheets, we encourage all residents and visitors of the County to provide input into the planning process. We have developed a short survey about the County and the risks it faces. We would greatly appreciate it if you would complete the survey and otherwise participate in this important endeavor. The survey can be found here: Lancaster County Hazard Mitigation Plan Update - Public Survey (surveymonkey.com).

Keep an eye out for upcoming Steering Committee meetings. Thank you for your participation in this planning effort!

Best,
Brooke Bowman (She/Her)
Community Resilience Coordinator
Lancaster Emergency Management Agency

CAUTION: This email originated from an external sender. Verify the source before opening links or attachments.

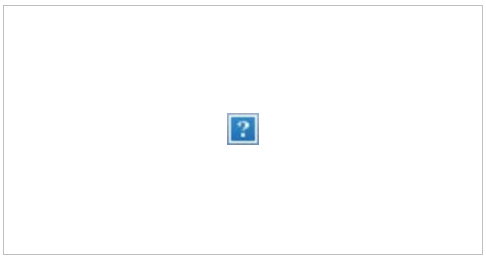
From: Niehaus, Kristine <KNiehaus@lancastercountypa.gov>
Sent: Thursday, January 18, 2024 9:38 AM
To: Niehaus, Kristine <KNiehaus@lancastercountypa.gov>
Subject: Lancaster County Hazard Mitigation Plan- Stakeholder Survey

To Lancaster County's Stakeholder Community:

Hello! As you may know, Lancaster County is updating its Hazard Mitigation Plan (HMP). The HMP will analyze the hazards faced by the county and its municipalities, residents, and businesses, and will identify a strategy for minimizing the vulnerability to these hazards. You may remember being invited to the Hazard Mitigation Steering Committee Kickoff Meeting that was held in October 2023.

As we conduct our analysis, I would like to invite you to provide input into the planning process. We have developed a short survey about the county and the risks it faces. We would greatly appreciate it if you would complete the survey to provide your insights in this important endeavor. The survey can be found here:

Lancaster Stakeholder Survey



Lancaster County Hazard Mitigation Plan - Stakeholder Survey

Take this survey powered by surveymonkey.com. Create your own surveys for free.

www.surveymonkey.com

This survey is different than the Public Survey we sent out last week. Please forward it to the appropriate person in your organization, if applicable.

We would appreciate it if you would complete the survey by March 1, 2024.

Please reach out if you have any questions. Thank you very much!

Kris Niehaus
Health & Medical Preparedness Coordinator
Lancaster County Emergency Management Agency
28 S. Charlotte Street
Manheim, PA 17545
https://www.co.lancaster.pa.us/2705/Health-and-Medical-Preparedness

E: kniehaus@lancastercountypa.gov
P: (717) 664-1207
C: (717) 925-0564

From: Hazard Mitigation Plan
Subject: Lancaster County HMP Survey
Date: Thursday, January 18, 2024 8:47:52 AM

You don't often get email from hmp@lancastercountypa.gov. Learn why this is important

CAUTION: This email originated from an external sender. Verify the source before opening links or attachments.

Hello! As you may know, Lancaster County is updating its Hazard Mitigation Plan (HMP). The HMP will analyze the hazards faced by the county and its municipalities, residents, and businesses, and will identify a strategy for minimizing the vulnerability to these hazards. You may remember being invited to the Hazard Mitigation Steering Committee Kickoff Meeting that was held in October 2023.

As our neighbor, I would like to invite you to provide input into the planning process, so that our HMP can address issues that cross our borders and affect both our counties and communities. We have developed a short survey to gather this information. We would greatly appreciate it if you would complete the survey and otherwise participate in this important endeavor. The survey can be found here: https://www.surveymonkey.com/r/LancasterNeighboringSurvey.

We would appreciate it if you would complete the survey by March 1, 2024.

Please reach out if you have any questions. Thank you very much!

Have a great day!

Brooke Bowman (She/Her)
Community Resilience Coordinator & Volunteer Liaison
Lancaster Emergency Management Agency
(717) 664-1340
www.lancastercountypa.gov/2702

From: Hazard Mitigation Plan
Sent: Wednesday, March 13, 2024 8:56 AM
Subject: HMP - Problem Areas Survey

Good morning,

Lancaster County Emergency Management Agency is working on an update to the County Hazard Mitigation Plan.

We want to hear from you! Where do flooding and other hazards impact our communities? Please let us know by identifying those locations in a simple map survey here: Lancaster County, PA - Problem Area Survey (arcgis.com). This information will help make our communities safer.

Please share this far and wide!

Thank you!

Brooke Bowman (She/Her)
Community Resilience Coordinator & Volunteer Liaison
Lancaster Emergency Management Agency

28 S Charlotte St, Manheim, PA 17545
Phone: 717.664.1340 –Web: www.lancastercountypa.gov/2702

Note: The message and attachment(s) to this email are intended for the use of the individual or entity to which it is addressed, and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, printing or copying of this communication is strictly prohibited. If you received this in error, please contact the sender and delete the original message, any attachment(s) and copies. Thank you for your cooperation.

From: Bowman, Brooke
Subject: HMP Update PLEASE SHARE
Date: Tuesday, January 9, 2024 10:35:25 AM

CAUTION: This email originated from an external sender. Verify the source before opening links or attachments.

Good morning!

Lancaster County is updating its Hazard Mitigation Plan (HMP). The HMP will analyze the hazards faced by the County and its communities, residents, and businesses, and will identify a strategy for minimizing the vulnerability to these hazards. You can find out more about the HMP and the planning process here: Hazard Mitigation Planning | Lancaster County, PA - Official Website. We encourage all residents and visitors of the County to provide input into the planning process. We have developed a short survey about the County and the risks it faces. We would greatly appreciate it if you would complete the survey and otherwise participate in this important endeavor. The survey can be found here: Lancaster County Hazard Mitigation Plan Update - Public Survey (surveymonkey.com). Thank you for your participation in this planning effort!

Here is the link to the public survey:
https://www.surveymonkey.com/r/LancasterPublicSurvey

If you can, please share the public survey on municipal websites and social media!

Best,

Brooke Bowman (She/Her)
Community Resilience Coordinator & Volunteer Liaison
Lancaster Emergency Management Agency
(717) 664-1340
www.lancastercountypa.gov/2702

From: Hazard Mitigation Plan
Cc: Subbio, Tony
Subject: Survey- Lancaster County Hazard Mitigation Plan
Date: Thursday, May 9, 2024 1:06:07 PM
Attachments: image001.png

CAUTION: This email originated from an external sender. Verify the source before opening links or attachments.

Good afternoon,

Lancaster County is updating its Hazard Mitigation Plan (HMP). The HMP will analyze the hazards faced by the County and its communities, residents, and businesses, and will identify a strategy for minimizing the vulnerability to these hazards. You can find out more about the HMP and the planning process here: Hazard Mitigation Planning | Lancaster County, PA - Official Website. We encourage all residents and visitors of the County to provide input into the planning process. We have developed a short survey about the County and the risks it faces. We would greatly appreciate it if you would complete the survey and otherwise participate in this important endeavor. The survey can be found here: Lancaster County Hazard Mitigation Plan Update - Public Survey (surveymonkey.com).

Thank you for your participation in this planning effort!

Best,
Brooke

Brooke Bowman (She/Her)
Community Resilience Coordinator
Lancaster Emergency Management Agency
28 S Charlotte St, Manheim, PA 17545
Phone: 717.664.1340 –Web: www.lancastercountypa.gov/2702

Note: The message and attachment(s) to this email are intended for the use of the individual or entity to which it is addressed, and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, printing or copying of this communication is strictly prohibited. If you received this in error, please contact the sender and delete the original message, any attachment(s) and copies. Thank you for your cooperation.

From: Bowman, Brooke
Subject: Worksheets for School Districts - County Hazard Mitigation Plan
Date: Wednesday, January 17, 2024 4:28:48 PM

CAUTION: This email originated from an external sender. Verify the source before opening links or attachments.

Good afternoon,

Lancaster County is updating its Hazard Mitigation Plan (HMP). The HMP will analyze the hazards faced by the County and its communities, residents, and businesses, and will identify a strategy for minimizing the vulnerability to these hazards. You can find out more about the HMP and the planning process here: Hazard Mitigation Planning | Lancaster County, PA - Official Website.

As part of our HMP update there are three forms we have for School Districts to fill out and submit. The forms are linked below and are also available on the by visiting the County Website linked above. Please complete these forms at your earliest convenience and **submit to HMP@lancastercountypa.gov.**

- Hazard Ident and Risk Evaluation
- Capability Assessment Survey
- Mitigation Strategy Review

In addition to filling out the worksheets for School Districts, we encourage all residents and visitors of the County to provide input into the planning process. We have developed a short survey about the County and the risks it faces. We would greatly appreciate it if you would complete the survey and otherwise participate in this important endeavor. The survey can be found here: Lancaster County Hazard Mitigation Plan Update - Public Survey (surveymonkey.com).

Keep an eye out for upcoming Steering Committee meetings. Thank you for your participation in this planning effort!

Best,

Brooke Bowman (She/Her)
Community Resilience Coordinator & Volunteer Liaison
Lancaster Emergency Management Agency
(717) 664-1340
www.lancastercountypa.gov/2702

From: Hazard Mitigation Plan
Subject: Hazard Mitigation Plan Stakeholder Survey
Date: Thursday, January 18, 2024 9:10:14 AM

You don't often get email from hmp@lancastercountypa.gov. Learn why this is important

CAUTION: This email originated from an external sender. Verify the source before opening links or attachments.

Hello!

As you may know, Lancaster County is updating its Hazard Mitigation Plan (HMP). The HMP will analyze the hazards faced by the county and its municipalities, residents, and businesses, and will identify a strategy for minimizing the vulnerability to these hazards. You may remember being invited to the Hazard Mitigation Steering Committee Kickoff Meeting that was held in October 2023.

As we conduct our analysis, I would like to invite you to provide input into the planning process. We have developed a short survey about the county and the risks it faces. We would greatly appreciate it if you would complete the survey to provide your insights in this important endeavor. The survey can be found here: https://www.surveymonkey.com/r/LancasterStakeholderSurvey.

In additional to this survey, there is a survey for the **public** to complete which can be found here: https://www.surveymonkey.com/r/LancasterPublicSurvey. Please consider sharing this survey!

We would appreciate it if you would complete the survey by March 1, 2024.

Please reach out if you have any questions. Thank you very much!

Have a great day!

Brooke Bowman (She/Her)
Community Resilience Coordinator & Volunteer Liaison
Lancaster Emergency Management Agency
(717) 664-1340
www.lancastercountypa.gov/2702

From: Bowman, Brooke
Subject: Worksheets for School Districts - County Hazard Mitigation Plan
Date: Wednesday, January 17, 2024 4:28:48 PM

CAUTION: This email originated from an external sender. Verify the source before opening links or attachments.

Good afternoon,

Lancaster County is updating its Hazard Mitigation Plan (HMP). The HMP will analyze the hazards faced by the County and its communities, residents, and businesses, and will identify a strategy for minimizing the vulnerability to these hazards. You can find out more about the HMP and the planning process here: Hazard Mitigation Planning | Lancaster County, PA - Official Website.

As part of our HMP update there are three forms we have for School Districts to fill out and submit. The forms are linked below and are also available on the by visiting the County Website linked above. Please complete these forms at your earliest convenience and **submit to HMP@lancastercountypa.gov.**

- Hazard Ident and Risk Evaluation
- Capability Assessment Survey
- Mitigation Strategy Review

In addition to filling out the worksheets for School Districts, we encourage all residents and visitors of the County to provide input into the planning process. We have developed a short survey about the County and the risks it faces. We would greatly appreciate it if you would complete the survey and otherwise participate in this important endeavor. The survey can be found here: Lancaster County Hazard Mitigation Plan Update - Public Survey (surveymonkey.com).

Keep an eye out for upcoming Steering Committee meetings. Thank you for your participation in this planning effort!

Best,

Brooke Bowman (She/Her)
Community Resilience Coordinator & Volunteer Liaison
Lancaster Emergency Management Agency
(717) 664-1340
www.lancastercountypa.gov/2702

From: Hazard Mitigation Plan
To: raayers@harfordpublicsafety.org
Subject: Lancaster County HMP
Date: Wednesday, May 8, 2024 12:40:33 PM
Attachments: image001.png

CAUTION: This email originated from an external sender. Verify the source before opening links or attachments.

Good afternoon!

As you may know, Lancaster County is updating its Hazard Mitigation Plan (HMP). The HMP will analyze the hazards faced by the county and its municipalities, residents, and businesses, and will identify a strategy for minimizing the vulnerability to these hazards. You may remember being invited to the Hazard Mitigation Steering Committee Kickoff Meeting that was held in October 2023.

As our neighbor, I would like to invite you to provide input into the planning process, so that our HMP can address issues that cross our borders and affect both our counties and communities. We have developed a short survey to gather this information. We would greatly appreciate it if you would complete the survey and otherwise participate in this important endeavor. The survey can be found here: https://www.surveymonkey.com/r/LancasterNeighboringSurvey.

We would appreciate it if you would complete the survey by May 17, 2024.

Please reach out if you have any questions. Thank you very much!

Have a great day!

Brooke

Brooke Bowman (She/Her)
Community Resilience Coordinator
Lancaster Emergency Management Agency
28 S Charlotte St, Manheim, PA 17545
Phone: 717.664.1340 –Web: www.lancastercountypa.gov/2702

Note: The message and attachment(s) to this email are intended for the use of the individual or entity to which it is addressed, and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, printing or copying of this communication is strictly prohibited. If you received this in error, please contact the sender and delete the original message, any attachment(s) and copies. Thank you for your cooperation.

From: Hazard Mitigation Plan
To: pssalamone@countyofberks.com
Subject: Lancaster County HMP
Date: Wednesday, May 8, 2024 12:38:20 PM
Attachments: image001.png

CAUTION: This email originated from an external sender. Verify the source before opening links or attachments.

Good afternoon!

As you may know, Lancaster County is updating its Hazard Mitigation Plan (HMP). The HMP will analyze the hazards faced by the county and its municipalities, residents, and businesses, and will identify a strategy for minimizing the vulnerability to these hazards. You may remember being invited to the Hazard Mitigation Steering Committee Kickoff Meeting that was held in October 2023.

As our neighbor, I would like to invite you to provide input into the planning process, so that our HMP can address issues that cross our borders and affect both our counties and communities. We have developed a short survey to gather this information. We would greatly appreciate it if you would complete the survey and otherwise participate in this important endeavor. The survey can be found here: https://www.surveymonkey.com/r/LancasterNeighboringSurvey.

We would appreciate it if you would complete the survey by May 17, 2024.

Please reach out if you have any questions. Thank you very much!

Have a great day!

Brooke

Brooke Bowman (She/Her)
Community Resilience Coordinator
Lancaster Emergency Management Agency
28 S Charlotte St, Manheim, PA 17545
Phone: 717.664.1340 –Web: www.lancastercountypa.gov/2702

Note: The message and attachment(s) to this email are intended for the use of the individual or entity to which it is addressed, and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, printing or copying of this communication is strictly prohibited. If you received this in error, please contact the sender and delete the original message, any attachment(s) and copies. Thank you for your cooperation.

From: Hazard Mitigation Plan
Subject: Lancaster County HMP Survey
Date: Thursday, January 18, 2024 8:47:52 AM

You don't often get email from hmp@lancastercountypa.gov. Learn why this is important

CAUTION: This email originated from an external sender. Verify the source before opening links or attachments.

Hello! As you may know, Lancaster County is updating its Hazard Mitigation Plan (HMP). The HMP will analyze the hazards faced by the county and its municipalities, residents, and businesses, and will identify a strategy for minimizing the vulnerability to these hazards. You may remember being invited to the Hazard Mitigation Steering Committee Kickoff Meeting that was held in October 2023.

As our neighbor, I would like to invite you to provide input into the planning process, so that our HMP can address issues that cross our borders and affect both our counties and communities. We have developed a short survey to gather this information. We would greatly appreciate it if you would complete the survey and otherwise participate in this important endeavor. The survey can be found here: https://www.surveymonkey.com/r/LancasterNeighboringSurvey.

We would appreciate it if you would complete the survey by March 1, 2024.

Please reach out if you have any questions. Thank you very much!

Have a great day!

Brooke Bowman (She/Her)
Community Resilience Coordinator & Volunteer Liaison
Lancaster Emergency Management Agency
(717) 664-1340
www.lancastercountypa.gov/2702

From: Bowman, Brooke
Subject: HMP Worksheets
Date: Tuesday, January 9, 2024 10:44:28 AM

CAUTION: This email originated from an external sender. Verify the source before opening links or attachments.

Good morning,

Lancaster County is updating its Hazard Mitigation Plan (HMP). The HMP will analyze the hazards faced by the County and its communities, residents, and businesses, and will identify a strategy for minimizing the vulnerability to these hazards. You can find out more about the HMP and the planning process here: Hazard Mitigation Planning | Lancaster County, PA - Official Website.

HMP worksheets are available at: https://lancastercountypa.gov/2899/Hazard-Mitigation-Plan-Worksheets

Jurisdiction specific Mitigation Strategy Review worksheets are posted. Please complete forms under Municipalities along with your jurisdiction specific worksheet.

Best,

Brooke Bowman (She/Her)
Community Resilience Coordinator & Volunteer Liaison
Lancaster Emergency Management Agency
(717) 664-1340
www.lancastercountypa.gov/2702

From: Bowman, Brooke
Subject: HMP Update PLEASE SHARE
Date: Tuesday, January 9, 2024 10:35:25 AM

CAUTION: This email originated from an external sender. Verify the source before opening links or attachments.

Good morning!

Lancaster County is updating its Hazard Mitigation Plan (HMP). The HMP will analyze the hazards faced by the County and its communities, residents, and businesses, and will identify a strategy for minimizing the vulnerability to these hazards. You can find out more about the HMP and the planning process here: Hazard Mitigation Planning | Lancaster County, PA - Official Website. We encourage all residents and visitors of the County to provide input into the planning process. We have developed a short survey about the County and the risks it faces. We would greatly appreciate it if you would complete the survey and otherwise participate in this important endeavor. The survey can be found here: Lancaster County Hazard Mitigation Plan Update - Public Survey (surveymonkey.com). Thank you for your participation in this planning effort!

Here is the link to the public survey:
https://www.surveymonkey.com/r/LancasterPublicSurvey

If you can, please share the public survey on municipal websites and social media!

Best,

Brooke Bowman (She/Her)
Community Resilience Coordinator & Volunteer Liaison
Lancaster Emergency Management Agency
(717) 664-1340
www.lancastercountypa.gov/2702

From: Bowman, Brooke
To: Paulson, Lisa
Cc: Subbio, Tony
Subject: Hazard Mitigation Plan Surveys
Date: Wednesday, May 8, 2024 8:26:20 AM
Attachments: image001.png

CAUTION: This email originated from an external sender. Verify the source before opening links or attachments.

Good morning Lisa,

Lancaster County EMA is currently undergoing our planning process for our Hazard Mitigation Plan. In our plan, we are paying special attention to our vulnerable populations - such as the older adult population. We are distributing a survey to collect data on areas of concern and want to do some targeting to our older adult population.

With your oversight of the Senior Centers, would it be possible to have you share this survey with your center managers to distribute to the participants? Of course, it would be entirely voluntary for participants, but we would love to try and capture some data about our older adult population.

It is traditionally a survey hyperlink online, but we can ask our contractor to make it into a paper document for those who do not have access to technology. The Public Survey and Problem Area Survey can be found here.

Thank you for your consideration! We look forward to finding better ways to conduct emergency plans for the older adult population in our hazard mitigation process.

Best,
Brooke

Brooke Bowman (She/Her)
Community Resilience Coordinator
Lancaster Emergency Management Agency
28 S Charlotte St, Manheim, PA 17545
Phone: 717.664.1340 –Web: www.lancastercountypa.gov/2702

Note: The message and attachment(s) to this email are intended for the use of the individual or entity to which it is addressed, and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, printing or copying of this communication is strictly prohibited. If you received this in error, please contact the sender and delete the original message, any attachment(s) and copies. Thank you for your cooperation.

From: Hazard Mitigation Plan
Subject: Hazard Mitigation Plan Stakeholder Survey
Date: Thursday, January 18, 2024 9:10:14 AM

You don't often get email from hmp@lancastercountypa.gov. Learn why this is important

CAUTION: This email originated from an external sender. Verify the source before opening links or attachments.

Hello!

As you may know, Lancaster County is updating its Hazard Mitigation Plan (HMP). The HMP will analyze the hazards faced by the county and its municipalities, residents, and businesses, and will identify a strategy for minimizing the vulnerability to these hazards. You may remember being invited to the Hazard Mitigation Steering Committee Kickoff Meeting that was held in October 2023.

As we conduct our analysis, I would like to invite you to provide input into the planning process. We have developed a short survey about the county and the risks it faces. We would greatly appreciate it if you would complete the survey to provide your insights in this important endeavor. The survey can be found here: https://www.surveymonkey.com/r/LancasterStakeholderSurvey.

In additional to this survey, there is a survey for the **public** to complete which can be found here: https://www.surveymonkey.com/r/LancasterPublicSurvey. Please consider sharing this survey!

We would appreciate it if you would complete the survey by March 1, 2024.

Please reach out if you have any questions. Thank you very much!

Have a great day!

Brooke Bowman (She/Her)
Community Resilience Coordinator & Volunteer Liaison
Lancaster Emergency Management Agency
(717) 664-1340
www.lancastercountypa.gov/2702

From:	Bowman, Brooke
To:	Subbio, Tony
Subject:	FW: Worksheets for School Districts - County Hazard Mitigation Plan
Date:	Monday, March 18, 2024 7:54:24 AM
Attachments:	image001.png Sent to Public School List.pdf

CAUTION: This email originated from an external sender. Verify the source before opening links or attachments.

Brooke Bowman (She/Her)
Community Resilience Coordinator & Volunteer Liaison
Lancaster Emergency Management Agency

From: Hazard Mitigation Plan
Sent: Monday, March 18, 2024 7:26 AM
Subject: Worksheets for School Districts - County Hazard Mitigation Plan

Good afternoon,

Lancaster County is updating its Hazard Mitigation Plan (HMP). The HMP will analyze the hazards faced by the County and its communities, residents, and businesses, and will identify a strategy for minimizing the vulnerability to these hazards. You can find out more about the HMP and the planning process here: Hazard Mitigation Planning | Lancaster County, PA - Official Website.

As part of our HMP update there are three forms we have for School Districts to fill out and submit. The forms are linked below and are also available on the by visiting the County Website linked above. If you have not done so already, please complete these forms at your earliest convenience and **submit to HMP@lancastercountypa.gov.**

- Hazard Ident and Risk Evaluation
- Capability Assessment Survey
- Mitigation Strategy Review

In addition to filling out the worksheets for School Districts, we encourage all residents and visitors of the County to provide input into the planning process. We have developed a short survey about the County and the risks it faces. We would greatly appreciate it if you would complete the survey and otherwise participate in this important endeavor. The survey can be found here: Lancaster County Hazard Mitigation Plan Update - Public Survey (surveymonkey.com).

Keep an eye out for upcoming Steering Committee meetings. Thank you for your participation

in this planning effort!

Best,
Brooke Bowman

Brooke Bowman (She/Her)
Community Resilience Coordinator & Volunteer Liaison
Lancaster Emergency Management Agency
28 S Charlotte St, Manheim, PA 17545
Phone: 717.664.1340 –Web: www.lancastercountypa.gov/2702

Note: The message and attachment(s) to this email are intended for the use of the individual or entity to which it is addressed, and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, printing or copying of this communication is strictly prohibited. If you received this in error, please contact the sender and delete the original message, any attachment(s) and copies. Thank you for your cooperation.

Stokes, Jessica1

Subject: LCPD meeting
Location: 150 N Queen St (150 N Queen St, Lancaster, Pennsylvania)

Start: Thu 8/15/2024 10:30 AM
End: Thu 8/15/2024 12:00 PM

Recurrence: (none)

Meeting Status: Accepted

Organizer: Bowman, Brooke

⚠ **CAUTION:** This email originated from an external sender. Verify the source before opening links or attachments. ⚠

From The Planning Department:
In person: Planning Department Conference Room.
Zoom meeting link https://lancastercountypa-gov.zoom.us/j/86891296057 for the LCPD meeting presentation scheduled for August 15 at 10:30am. It will be so fantastic for the planners to hear about how we are incorporating a section on places2040, the county comprehensive plan as part of the Hazard Mitigation Plan update.

Note: The message and attachment(s) to this email are intended for the use of the individual or entity to which it is addressed, and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, printing or copying of this communication is strictly prohibited. If you received this in error, please contact the sender and delete the original message, any attachment(s) and copies. Thank you for your cooperation.

Stokes, Jessica1

Subject: Lancaster County HMP - Mitigation Strategy Workshop
Location: 101 Champ Blvd, Manheim, PA 17545

Start: Wed 12/4/2024 3:30 PM
End: Wed 12/4/2024 5:30 PM

Recurrence: (none)

Meeting Status: Meeting organizer

Organizer: Stokes, Jessica1
Required Attendees: Fassnacht, Brett; alex@hempfieldtech.com; alext0616@yahoo.com; awilliams1169@gmail.com; ehtema@easthempfield.org; dleed@lafayettefire.com; erin_hogan21@yahoo.com; gduncan520@aol.com; heathermorgan427@gmail.com; rjweir01@gmail.com; jayrob2512@gmail.com; pfeiffer1274@gmail.com; kevinbeckv@gmail.com; firefighterkim21@gmail.com; kstonebraker5@wellspan.org; linnhe.karolina@gmail.com; grinderguy@comcast.net; mkz@att.net; sarahkris.ames@gmail.com; spadacciazack@gmail.com; dylanlgetz@gmail.com; publicsafetyweaver@gmail.com; paulwmu@gmail.com; rescuechief500@aol.com; 95dodgeff@comcast.net; ffoakes@gmail.com; hoffmatt43@gmail.com; dicksteeg@icloud.com; natehw@live.com; dicksteeg@outlook.com; bherskowitz; BPasquale@lancastercountypa.gov; Bowman, Brooke; Diane Garber; KWeber@lancastercountypa.gov; Niehaus, Kristine; Glatfelter, Sara; TKirkpatrick@lancastercountypa.gov; ZGibbons@lancastercountypa.gov; MGalley@ECocalicoTWPAuth.com; manager@westhempfield.org; Bhoward@westearltwp.org; manheimregionalema@outlook.com; bfassnacht44@gmail.com; CDelong@cityoflancasterpa.gov; curtisjthompson1@gmail.com; dschmeck@ptd.net; starden0103@aim.com; dhagelgans@comcast.net; duane@leinbachelectric.com; Duane Ober; gleisey12@gmail.com; jrf@newhollandborough.org; edentwpdemc@comcast.net; jbarninger@columbiapa.net; jhatfield@lafayettefire.com; edentwpemc@comcast.net; jhouser@leacocktwp.com; iacono4@embarqmail.com; joe_iacono@mountvillefire.com; johnk@easthempfield.org; michenerj@pequeatownshippd.org; swampthing46@aol.com; mayor.adamstown@gmail.com; zepinc@dejazzd.com; zepinc@windstream.net; jskonberg@ymail.com; emergencycoordinator@westlampeter.com; kevinhertzog73@gmail.com; lshenk@dejazzd.com; BartEMC@comcast.net; pcastline@comcast.net; pacolvin@gmail.com; randygockley56@gmail.com; oakhillhtl@prodigy.net; scott@hacheyconstruction.com; slittle@manheimtownship.org; smb900@comcast.net; echterns@strasburgpd.org; cwk@epix.net; wsouthard50@gmail.com; timothy.soley@va.gov; elofgren@christianafire.com; Seagrave82@yahoo.com; vdestefano@eastpetersburgborough.org; Cino, Sharon; ChristopherThompson@lancasterconservation.org; kdesantis@lancasterchamber.com; Stephen_Melnyk@cocalico.org; Tabetha_Haldeman@cocalico.org; almelendez@columbiabsd.org; don_mann@conestogavalley.org; jill_koser@conestogavalley.org; gregory.kiehl@donegalsd.org; nadine_larkin@elanco.org; daphne_kirkpatrick@etownschools.org; richard_hornberger@easdpa.org; tab_musser@hempfieldsd.org; doug_dandridge@hempfieldsd.org; andrew_godfrey@l-spioneers.org; llnichols@sdlancaster.org; reimanda@mtwp.net; flannerya@manheimcentral.org; krista.cox@pennmanor.net; rich_eby@pequeavalley.org; monica_miller@solancosd.org; sszobocsan@warwicksd.org; stephen_halstead@iu13.org; robert_dangler@solancosd.org; sue_smith@etownschools.org; sdomowicz@octorara.org
Optional Attendees: Vassallo, Emily; Goodling, Brooke; Jerry Egan; William Gleason

Resending this invite with this option join us virtually! Please see the link at the bottom of this invitiation.

Good Afternoon, Planning Partnership –

On behalf of the Lancaster County Department of Public Safety's Emergency Management Division, we are inviting you to join the County at the in-person Mitigation Strategy Workshop. In the Mitigation Strategy Workshop, jurisdictions will begin identifying various problem areas and formulate mitigation actions to address those issues. Staff from Tetra Tech and Lancaster County will be available to assist jurisdictions with the creation of mitigation actions and to complete any outstanding worksheets. We ask that you attend this upcoming meeting and workshop, which will be held at the Lancaster County Public Safety Training Center.

Steering Committee Mitigation Strategy Workshop
Date – Wednesday, December 4th
Location – Lancaster County Public Safety Training Center
101 Champ Blvd, Manheim, PA 17545
Time – 3:30 PM

For your convenience meeting materials have been attached to this meeting invitation:

- ***Meeting Agenda***: order in which the meeting will be facilitated.
- ***Meeting Presentation***: a PDF version of the anticipated presentation (this is subject to change)
- ***Mitigation Catalog***: a PDF file detailing potential actions for certain hazards of concern.
- ***Types of Mitigation Actions***: a PDF file identifying the four types of mitigation actions.
- ***SWOO Worksheet***: identify mitigation strategies and capabilities that will meet the goals and objectives for the Lancaster County Hazard Mitigation Plan. The opportunities developed from this process will serve as a supplement for the identification of mitigation actions.
- ***New Action Development Worksheet***: identify problems and potential solutions that will provide the basis for your new mitigation actions.

Additional supporting documents can be accessed here on your web browser to view FEMA's Guides to Expanding Mitigation, which identify how communities can better support hazard mitigation projects and planning by engaging other sectors.

We ask that you please RSVP to this meeting at your earliest convenience. All invited organizations are encouraged to attend. Thank you in advance for your continued participation in the Steering Committee for the update of the County's Hazard Mitigation Plan. Please let me know if you have any questions regarding the meeting or this project.

Truly,
Jessica Stokes, MSEM, NJCEM | Hazard Mitigation Project Manager
Direct +1 973-630-8017 | Jessica.Stokes@tetratech.com

Tetra Tech | *Leading with Science®*

Microsoft Teams Need help?

Join the meeting now

Meeting ID: 231 444 255 291

Passcode: nE6Rd6ib

Dial in by phone

+1 213-357-2812,,420414035# United States, Los Angeles

Find a local number

Phone conference ID: 420 414 035#

For organizers: Meeting options | Reset dial-in PIN

From:	Stokes, Jessica1
To:	Goodling, Brooke; Cino, Sharon; ChristopherThompson@lancasterconservation.org; CDelong@cityoflancasterpa.gov; kdesantis@lancasterchamber.com; Niehaus, Kristine; dgarber@easthempfield.org; bherskowitz; vdestefano@eastpetersburgborough.org
Cc:	Vassallo, Emily
Subject:	Lancaster County Planning Team Draft Plan Review Meeting
Start:	Thursday, January 30, 2025 10:00:00 AM
End:	Thursday, January 30, 2025 11:00:00 AM
Location:	Microsoft Teams Meeting
Attachments:	LanCo_PT Draft Plan Review_Agenda.pdf Lancaster County Public Review Meeting #1.png Lancaster County Public Review Meeting #2.png Lancaster County HMP Press Release_PublicDraftPlanReview.docx Lancaster County HMP Meeting Notice_Social Media Sample Language.docx

---

Good Evening,

Thank you for your continued support through the Lancaster County Hazard Mitigation Plan update. The planning process is nearing its end, and we are happy to announce the Draft Plan Review meeting on Thursday, January 30 at 10:00 AM. This meeting will be held virtually at (https://msteams.link/3KK8), to review the structure of the draft 2025 Hazard Mitigation Plan, process of plan adoption, and address any questions or comments on the draft plan.

If you are unable to attend the Planning Team Draft Plan Review meeting, please consider joining us in the evening on Thursday, January 30 at 6:30 PM instead for the Steering Committee Public Draft Plan Review meeting, available through this link (https://msteams.link/VCOX <https://msteams.link/VCOX>).

Following this meeting the Public Review Period will commence for 30 days, ending on March 1, 2025. The public and stakeholders are encouraged to participate in this public review period by submitting any comments through this survey (https://www.surveymonkey.com/r/LancasterCountyDraftPlanReviewSurvey <https://www.surveymonkey.com/r/LancasterCountyDraftPlanReviewSurvey>). The draft plan will be available on the County's website (https://co.lancaster.pa.us/2944/2022-2025-Draft-Hazard-Mitigation-Plan-f).

Please advertise the Steering Committee Draft Plan Review meeting utilizing the attached social media graphic and text template to inform the Public of the opportunity to participate. A draft press release is also included to advertise the Steering Committee/Public Draft Plan Review Meeting.

Microsoft Teams Need help? <https://aka.ms/JoinTeamsMeeting?omkt=en-US>

Join the meeting now <https://teams.microsoft.com/l/meetup-join/19%3ameeting_YTAwYTI0OTYtNTdhNS00NjYyLWFlMDUtNGJjNmVmYTZkZDY0%40thread.v2/0?context=%7b%22Tid%22%3a%22a40fe4ba-abc7-48fe-8792-b43889936400%22%2c%22Oid%22%3a%22b26f1d68-124c-4154-8b35-d01187e77ead%22%7d>

Meeting ID: 269 460 681 471

Passcode: ch2Cx3LB

Dial in by phone

+1 213-357-2812,,954680358# <tel:+12133572812,,954680358> United States, Los Angeles

Find a local number <https://dialin.teams.microsoft.com/92ba1fce-09f8-4030-b790-6499410b6bdc?id=954680358>

Phone conference ID: 954 680 358#

For organizers: Meeting options <https://teams.microsoft.com/meetingOptions/?organizerId=b26f1d68-124c-4154-8b35-d01187e77ead&tenantId=a40fe4ba-abc7-48fe-8792-b43889936400&threadId=19_meeting_YTAwYTI0OTYtNTdhNS00NjYyLWFlMDUtNGJjNmVmYTZkZDY0@thread.v2&messageId=0&language=en-US> | Reset dial-in PIN <https://dialin.teams.microsoft.com/usp/pstnconferencing>

From:	Stokes, Jessica1
To:	Vassallo, Emily; Fassnacht, Brett; alex@hempfieldtech.com; alext0616@yahoo.com; awilliams1169@gmail.com; ehtema@easthempfield.org; dleed@lafayettefire.com; erin_hogan21@yahoo.com; gduncan520@aol.com; heathermorgan427@gmail.com; rjweir01@gmail.com; jayrob2512@gmail.com; pfeiffer1274@gmail.com; kevinbeckv@gmail.com; firefighterkim21@gmail.com; kstonebraker5@wellspan.org; linnhe.karolina@gmail.com; grinderguy@comcast.net; rnkz@att.net; sarahkris.ames@gmail.com; spadacciazack@gmail.com; dylanlgetz@gmail.com; publicsafetyweaver@gmail.com; paulwmu@gmail.com; rescuechief500@aol.com; 95dodgeff@comcast.net; ffoakes@gmail.com; hoffmatt43@gmail.com; dicksteeg@icloud.com; natehw@live.com; dicksteeg@outlook.com; bherskowitz; BPasquale@lancastercountypa.gov; Bowman, Brooke; Diane Garber; KWeber@lancastercountypa.gov; Niehaus, Kristine; Glatfelter, Sara; TKirkpatrick@lancastercountypa.gov; ZGibbons@lancastercountypa.gov; MGalley@ECocalicoTWPAuth.com; manager@westhempfield.org; Bhoward@westearltwp.org; manheimregionalema@outlook.com; bfassnacht44@gmail.com; CDelong@cityoflancasterpa.gov; curtisjthompson1@gmail.com; dschmeck@ptd.net; starden0103@aim.com; dhagelgans@comcast.net; duane@leinbachelectric.com; Duane Ober; gleisey12@gmail.com; jrf@newhollandborough.org; edentwpdemc@comcast.net; jbarninger@columbiapa.net; jhatfield@lafayettefire.com; edentwpemc@comcast.net; jhouser@leacocktwp.com; iacono4@embarqmail.com; joe_iacono@mountvillefire.com; johnk@easthempfield.org; michenerj@pequeatownshippd.org; swampthing46@aol.com; mayor.adamstown@gmail.com; zepinc@dejazzd.com; zepinc@windstream.net; jskonberg@ymail.com; emergencycoordinator@westlampeter.com; kevinhertzog73@gmail.com; lshenk@dejazzd.com; BartEMC@comcast.net; pcastline@comcast.net; pacolvin@gmail.com; randygockley56@gmail.com; oakhillhtl@prodigy.net; scott@hacheyconstruction.com; slittle@manheimtownship.org; smb900@comcast.net; echterns@strasburgpd.org; cwk@epix.net; wsouthard50@gmail.com; timothy.soley@va.gov; elofgren@christianafire.com; Seagrave82@yahoo.com; vdestefano@eastpetersburgborough.org; Cino, Sharon; ChristopherThompson@lancasterconservation.org; kdesantis@lancasterchamber.com; Stephen_Melnyk@cocalico.org; Tabetha_Haldeman@cocalico.org; almelendez@columbiabsd.org; don_mann@conestogavalley.org; jill_koser@conestogavalley.org; gregory.kiehl@donegalsd.org; nadine_larkin@elanco.org; daphne_kirkpatrick@etownschools.org; richard_hornberger@easdpa.org; tab_musser@hempfieldsd.org; doug_dandridge@hempfieldsd.org; andrew_godfrey@l-spioneers.org; llnichols@sdlancaster.org; reimanda@mtwp.net; flannerya@manheimcentral.org; krista.cox@pennmanor.net; rich_eby@pequeavalley.org; monica_miller@solancosd.org; sszobocsan@warwicksd.org; stephen_halstead@iu13.org; robert_dangler@solancosd.org; sue_smith@etownschools.org; sdomowicz@octorara.org; Goodling, Brooke; Jerry Egan; William Gleason
Subject:	Lancaster County Steering Committee Draft Plan Review Meeting
Start:	Thursday, January 30, 2025 6:30:00 PM
End:	Thursday, January 30, 2025 7:30:00 PM
Location:	Microsoft Teams Meeting
Attachments:	LanCo_SC Draft Plan Review_Agenda.pdf Lancaster County Public Review Meeting_#1.png Lancaster County Public Review Meeting_#2.png Lancaster County HMP Meeting Notice_Social Media Sample Language.docx

---

Good Evening,

Thank you for your support throughout the Lancaster County Hazard Mitigation Plan update. The planning process is nearing its end, and we are happy to announce the Draft Plan Review meeting on Thursday, January 30 at 6:30 PM. This meeting will be held virtually at (https://msteams.link/VCOX), to review the structure of the draft 2025 Hazard Mitigation Plan, process of plan adoption, and address any questions or comments on the draft plan.

Following this meeting the Public Review Period will commence for 30 days, ending on March 1, 2025. The public and stakeholders are encouraged to participate in this public review period by submitting any comments through this survey (https://www.surveymonkey.com/r/LancasterCountyDraftPlanReviewSurvey). The draft plan will be available on the County's website (https://co.lancaster.pa.us/2944/2022-2025-Draft-Hazard-Mitigation-Plan-f).

Please advertise this Draft Plan Review meeting utilizing the attached social media graphic and text template to inform the Public of the opportunity to participate.

Microsoft Teams Need help? <https://aka.ms/JoinTeamsMeeting?omkt=en-US>

Join the meeting now <https://teams.microsoft.com/l/meetup-join/19%3ameeting_MzM4ZmI1NzktZjZlZi00ZWRkLWEzYmUtZWQ3ZTRhMGEzYTJi%40thread.v2/0?context=%7b%22Tid%22%3a%22a40fe4ba-abc7-48fe-8792-b43889936400%22%2c%22Oid%22%3a%22b26f1d68-124c-4154-8b35-d01187e77ead%22%7d>

Meeting ID: 294 013 262 633

Passcode: hT3zt3Cg

Dial in by phone

+1 213-357-2812,,127120007# <tel:+12133572812,,127120007> United States, Los Angeles

Find a local number <https://dialin.teams.microsoft.com/92ba1fce-09f8-4030-b790-6499410b6bdc?id=127120007>

Phone conference ID: 127 120 007#

For organizers: Meeting options <https://teams.microsoft.com/meetingOptions/?organizerId=b26f1d68-124c-4154-8b35-d01187e77ead&tenantId=a40fe4ba-abc7-48fe-8792-b43889936400&threadId=19_meeting_MzM4ZmI1NzktZjZlZi00ZWRkLWEzYmUtZWQ3ZTRhMGEzYTJi@thread.v2&messageId=0&language=en-US> | Reset dial-in PIN <https://dialin.teams.microsoft.com/usp/pstnconferencing>

View this email in your browser



January 19, 2024

EVENTS & PROGRAMS | JOB BOARD | MEMBER DIRECTORY | COMMUNITY CALENDAR



Have Your Ad Featured Here! Showcase your brand in front of a curated business-to-business audience that will generate leads, build brand awareness, and strengthen your presence in the Lancaster County by advertising with the Lancaster Chamber either through email banner ads, sponsorships or Thriving print ads. ***Learn more about your advertising opportunites*** *here*.





Business Survey: Hazard Mitigation Plan

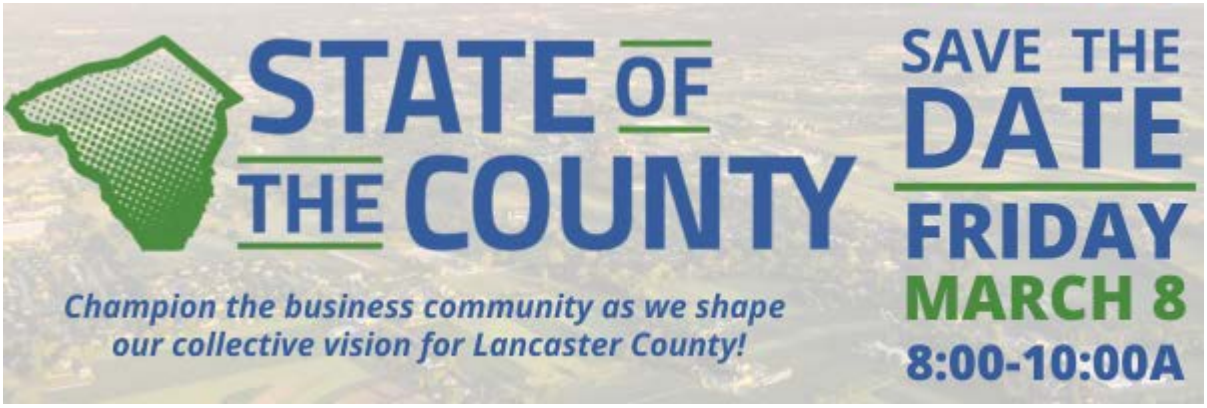
As Lancaster County updates its Hazard Mitigation Plan, the Lancaster Emergency Management Agency (LEMA) is seeking feedback on the impact environmental hazards (earthquake, flash flood, pandemic, utility disruption, etc.) might have on your business and community. The new plan will identify risks, minimize vulnerability, and develop a strategy for county-wide collaboration in the case of an emergency. Please complete the survey by March 1st.

TAKE LANCASTER COUNTY HAZARD MITIGATION PLAN - STAKEHOLDER SURVEY



CommutePA Unveils New Brand and Website

Commuter Services of PA, a program of the Susquehanna Regional Transportation Partnership (SRTP), has rebranded to CommutePA: Greener Trips. Cleaner Air. CommutePA provides businesses and organizations with transportation solutions for commuters within their nine-county region. They work closely with employers to develop custom transportation plans that support employee recruitment and retention and address parking and congestion issues. Read SRTP's press release here.





School Funding Report

Last Thursday, the Basic Education Funding Commission (BEFC) voted 8-7 in favor of the Democrats' report, which suggests that the state is underfunding school districts by more than $5 billion. The BEFC consists of six Democratic legislators, six Republican legislators, and three members of the Shapiro administration, created to address the landmark state court ruling that found Pennsylvania is unconstitutionally underfunding poor school districts.

A key recommendation in the report said the state should change the formula Pennsylvania uses to fund public schools to reduce year-over-year fluctuations in poorer districts' funding, while also calling for increased investments in school construction and teacher workforce. While the report contains only recommendations, the proponents of the report hope it provides a blueprint for additional K-12 funding in this year's state budget. Learn more about the commission's recommendations here.

READ FULL BEFC REPORT



Mark your calendars for our upcoming Regional Consortiums in January! Every three years, the Lancaster Chamber updates its strategic plan to ensure it's relevant, reflective, and proactive in addressing the interests and needs of Lancaster County's business community. ***Join us to offer valuable feedback, ask tough questions, and take part in shaping the future!***

JAN 23
REGISTER

CENTRAL CONSORTIUM
DATE: Tuesday, January 23, 2023
TIME: 8:00-9:30 AM
LOCATION: Discover Lancaster, Lancaster, PA
LEARN MORE | REGISTER

JAN 25
REGISTER

SOUTH & EAST CONSORTIUM
DATE: *Thursday*, January 25, 2023
Rescheduled Due to Inclement Weather
TIME: 8:00-9:30 AM
LOCATION: Charles F Snyder Funeral Home & Crematory, Willow Street, PA
LEARN MORE | REGISTER

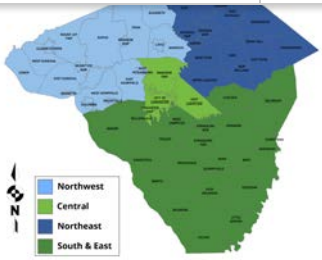
JAN 26
REGISTER

NORTHEAST CONSORTIUM
DATE: Friday, January 26, 2023
TIME: 8:00-9:30 AM
LOCATION: Signature Custom Cabinetry, Ephrata, PA
LEARN MORE | REGISTER

JAN 30
REGISTER

NORTHWEST CONSORTIUM
DATE: Tuesday, January 30, 2023
TIME: 8:00-9:30 AM
LOCATION: The National Watch and Clock Museum, Columbia, PA
LEARN MORE | REGISTER

local level, with business leaders having the chance to weigh in on pressing topics. Each session highlights a different area of the county, including the Northeast, Northwest, Central, and South & East regions.





DIGITAL ARTICLE SERIES

Check out the most recent installments in our Digital Article Series.



Advanced Cooling Technologies Assisting in Lunar Rover Mission

Advanced Cooling Technologies, Inc., a leading engineering and manufacturing company based in Central Pennsylvania, is on a mission to be the best thermal management company in the world (and universe!). Read More...



SAFEGUARDING YOUR DATA: The Crucial Role of Backups for Microsoft Office 365 Tenants

Data loss and security breaches are growing concerns in today's digital world. As businesses increasingly rely on cloud-based services like Microsoft Office 365, the need for robust data backup systems becomes paramount.

This article explores the importance of backups for Microsoft Office 365 tenants and highlights the crucial role they play in safeguarding valuable data. Read More...



The relationship between technology and business is redefining how companies operate, compete, and deliver value. Across South Central Pennsylvania and beyond, manufacturers are demonstrating remarkable resilience and adaptability in the face of rapidly changing market conditions. Read More...

VIEW ALL DIGITAL ARTICLES



- Child tax credit expansion, business incentives combined in new congressional tax plan (PennCapitalStar)
- State farm bill grants benefit agriculture programs for local students (LNP)
- Shapiro offers peek at 2024-25 budget plan priorities (PennLive)
- Rep. Smucker on National Debt: 'We have an existential problem that we have to address.' (LNP)
- Apprenticeship program for PA teachers addresses staffing shortages (CPBJ)
- Teamsters vote to reject Acme Distribution Center contract offer (LNP)
- Broadband expansion turning into 'jobs program,' leaving rural residents behind (TheCenterSquare)
- A quick guide to PA's House District 140 special election (City and State)
- Lane closure on Wrights Ferry Bridge Sunday night (LNP)

Upcoming County Government Meetings

Upcoming County Government Meetings:

January 17 – South Central Transit Authority

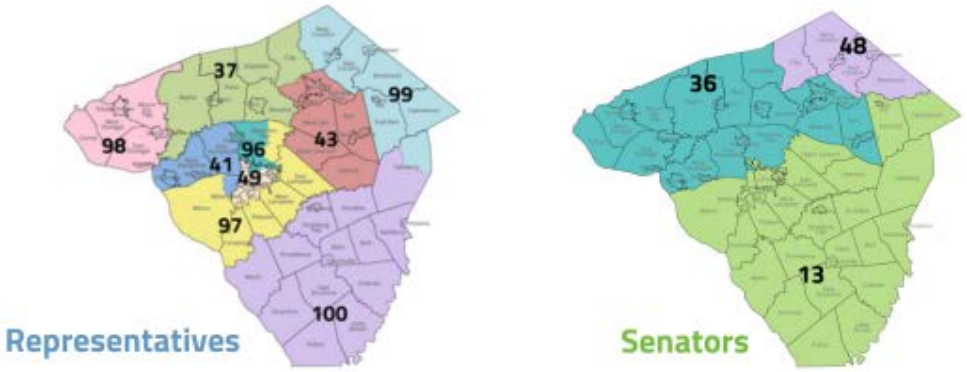
January 22 – Lancaster County Airport Authority

January 29 – Lancaster County MPO Meeting

February 1 – Local Emergency Planning Committee of Lancaster County

February 5 – Salary Board

Municipal meetings are another great place to make your voice heard! Attend a meeting where you live or where you work. Check out this interactive map to find your municipality.



Do you know who your legislators are? Check out our Lancaster County Legislative District Maps that outline each municipality and their corresponding state senator and representative. **Use our maps as a tool to figure out who represents you and your business!**

View Legislative District Maps

Contact Us

Learn more about how the Lancaster Chamber is advocating for you by visiting our Advocacy page and review the Pro-Business Agenda.



Katharine DeSantis
Public Policy Coordinator
Direct: (717) 696-6242
kdesantis@lancasterchamber.com

Customize Your Chamber Experience!

Stay engaged with the Chamber and stay informed with content that is relevant to you!



Learn More about our email communications and update your subscriptions in your Membership Hub.

Update my Communication Preferences *(Log into your Membership Hub and Click on My Subscriptions and select the emails you want*



Lancaster Chamber

info@lancasterchamber.com

Our mailing address is:
115 E. King Street
Lancaster, PA 17602
717.397.3531

Copyright © 2023 Lancaster Chamber, All rights reserved.

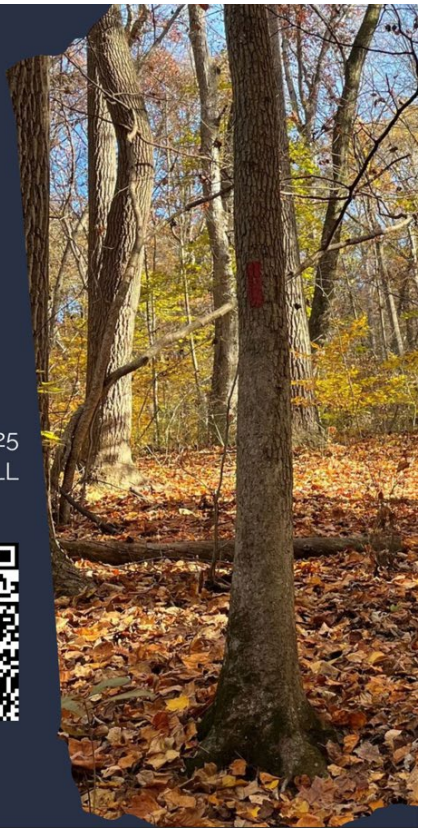
View this email in your brower | Manage Communication Preferences

Unsubscribe from this list | This email was sent to brbowman@lancastercountypa.gov. To continue receiving our emails, add news@lancasterchamber.com to your address book.


LANCASTER COUNTY
HAZARD MITIGATION PLAN UPDATE
SCHOOL
POLICE
REPRESENT AN ORGANIZATION OR GROUP THAT WORKS IN THE COUNTY? WE NEED YOUR HELP!
CLICK HERE TO TAKE THE STAKEHOLDER SURVEY


LANCASTER COUNTY
HAZARD MITIGATION PLAN
2025 UPDATE
CALLING ALL NEIGHBORING COMMUNITIES
Due to your proximity to Lancaster County, the effects of a disaster may have similar impacts in your community. Involvement in this process could reap mutual benefits. By participating in the review of this plan, you will be engaging in the regional coordination of disaster mitigation planning, which is one of the intents of the Mitigation Planning Regulations (44 CFR 201).
CLICK HERE TO TAKE THE NEIGHBORING COMMUNITY SURVEY

HAZARD MITIGATION PLAN PUBLIC SURVEY



LANCASTER COUNTY IS SEEKING INPUT FOR THE 2025 HAZARD MITIGATION ACTION PLAN. THE PLAN WILL ADDRESS THE COUNTY'S RISKS POSED BY HAZARDS.

TAKE THE SURVEY TODAY

https://www.surveymonkey.com/r/LancasterPublicSurvey





LANCASTER COUNTY

HAZARD MITIGATION PLAN 2025 UPDATE

Lancaster County is updating its Hazard Mitigation Plan. Learn more about the plan and how you can help by visiting our website:

https://co.lancaster.pa.us/2940/2022---2025-Hazard-Mitigation-Planning-P





LANCASTER COUNTY
HAZARD MITIGATION PLAN

TAKE THE SURVEY & HELP REDUCE LOSS FROM DISASTERS

SCAN THE QR CODE OR GO TO
HTTPS://WWW.SURVEYMONKEY.COM/R/LANCASTERPUBLICSURVEY
TO COMPLETE THE SURVEY

HAZARD MITIGATION PLAN 2025



Lancaster County is updating its Hazard Mitigation Plan. Learn more about the plan and how you can help by visiting our website or scan the QR code:

https://co.lancaster.pa.us/2940/2022---2025-Hazard-Mitigation-Planning-P

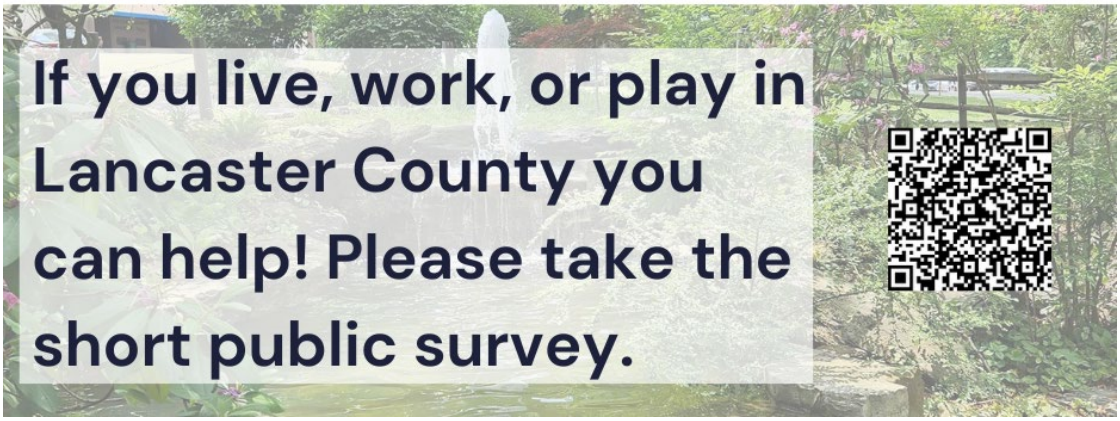
FOR MORE INFO:

BROOKE BOWMAN, COMMUNITY RESILIENCE COORDINATOR & VOLUNTEER LIAISON
brbowman@lancastercountypa.gov



2025

LANCASTER COUNTY HAZARD MITIGATION PLAN UPDATE





Lancaster County Hazard Mitigation Plan 2025 Update

A **Hazard Mitigation Plan (HMP)** is "the representation of the jurisdiction's commitment to reduce risks from natural hazards, serving as a guide for decision makers as they commit resources to reducing the effects of natural hazards" (44 CFR 201.6).

The **Hazard Mitigation Plan** (HMP) aims to identify and reduce the vulnerability to hazards to protect the health, safety, quality of life, environment, and economy of the communities within Lancaster County. HMPs must be reviewed and updated every five years and formally adopted by each participating jurisdiction. During the course of this planning project, county and local leaders and the community will work in tandem to identify risks, assess capabilities, and formulate a strategy to reduce disaster vulnerability.

Lancaster County is **required to have a FEMA-approved HMP** to remain eligible to apply for and receive grant funding through certain pre- and post-disaster programs.

Over the next year, Lancaster County will be updating the current HMP. **The objectives of this planning process are:**

- Provide the public opportunities throughout the planning process to provide input and feedback.
- Conduct a thorough risk assessment using the most recent and best available data.
- Formulate hazard mitigation goals, objectives, and actions as they relate to reducing loss of life and property from natural hazards.
- Reduce long-term impacts and damages to human health and structures, and reduced repair costs.
- Obtain state and federal approval of the HMP.
- Eligibility for federal funds for pre-disaster mitigation planning before disaster strikes.

We want to hear from you! Complete this survey and tell us what hazards you think impact Lancaster County.

Check out the County's HMP website to learn more about the HMP - https://co.lancaster.pa.us/2940/2022---2025-Hazard-Mitigation-Planning-P

Your Opinion Matters!

Join Lancaster County for a review of the draft Hazard Mitigation Plan (HMP) on Thursday, January 30 at 6:30 PM, EST. Following this meeting, the draft HMP will be available for public review for 30 days on the County's website: https://bit.ly/4arI2iQ

Join through this URL or by scanning the QR Code below
https://msteams.link/VCOX



WE NEED YOUR *feedback*



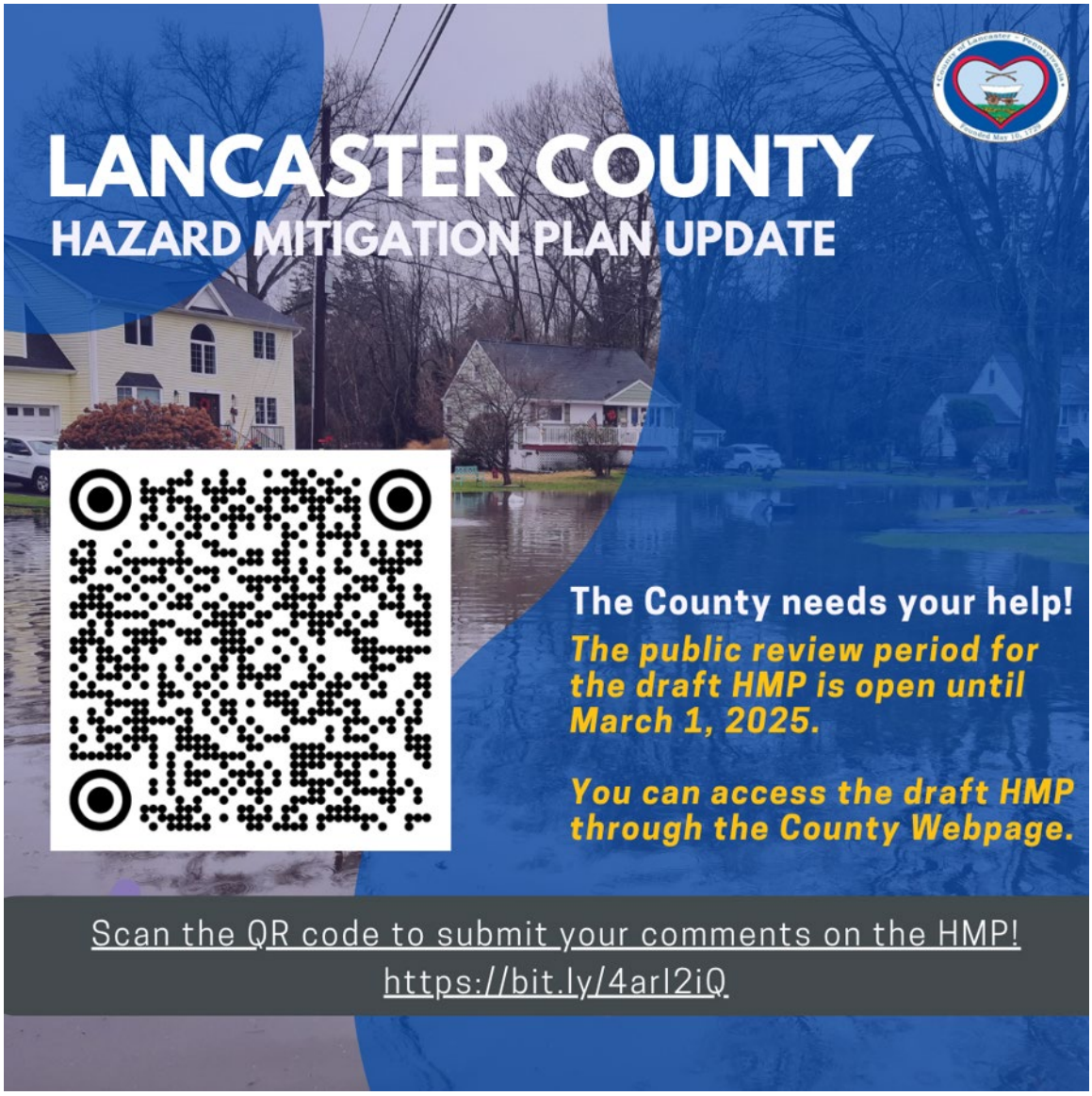
Join us for a review of the draft Lancaster County Hazard Mitigation Plan (HMP) on Thursday, January 30 at 6:30 PM EST. through the provided URL or by scanning the QR code below.

https://msteams.link/VCOX

The draft HMP will be available for review via the County's HMP website for 30 days.

Visit the County's HMP Website:

https://bit.ly/4arI2iQ


LANCASTER COUNTY
HAZARD MITIGATION PLAN UPDATE
The County needs your help!
The public review period for the draft HMP is open until March 1, 2025.
You can access the draft HMP through the County Webpage.
Scan the QR code to submit your comments on the HMP!
https://bit.ly/4arI2iQ


The Public Review Period is Open!
Visit https://bit.ly/4arI2iQ to review the draft HMP now through March 1, 2025.
Access the survey to submit your comments:


Lancaster County needs your input! We are currently in the public review period for the draft Hazard Mitigation Plan. Please take a moment to visit the County webpage and view the draft plan. Thank you for your participation!
Use the below url to view and comment on the HMP!
https://bit.ly/4arl2iQ

WE NEED YOUR feedback



https://bit.ly/4arI2iQ

The Lancaster County Hazard Mitigation Plan draft is ready for review. The public commenting period is open until **March 1, 2025**.

Visit the County webpage to view the draft plan!

Let Us Know!

Submit your feedback through online survey:

https://www.surveymonkey.com/r/LancasterCountyDraftPlanReviewSurvey

Lancaster County to Present the 2025 Draft Hazard Mitigation Plan

Lancaster County Emergency Management Division is continuing the process of updating the 2019 Hazard Mitigation Plan for the County and its municipalities. The plan focuses on existing and future buildings, infrastructure, and critical facilities that might be impacted by natural disasters. Ultimately, the mitigation projects identified and implemented will reduce vulnerability and enable communities to become more resilient to disasters.

To date, the County has completed a risk assessment to identify hazards that may impact Lancaster County and its municipalities, profiled the relevant hazards and their potential consequences, identified assets that are subject to losses or damage, estimated the potential losses that could result from each type of hazard, and developed hazard mitigation strategies. A public meeting will be held next week, as listed below, to review the sections of the draft 2025 Lancaster County Hazard Mitigation Plan:

- A public meeting will be held to review the draft Hazard Mitigation Plan via Teams on Thursday, January 30 at 6:30 P.M. EST. The meeting can be accessed here https://msteams.link/VCOX.

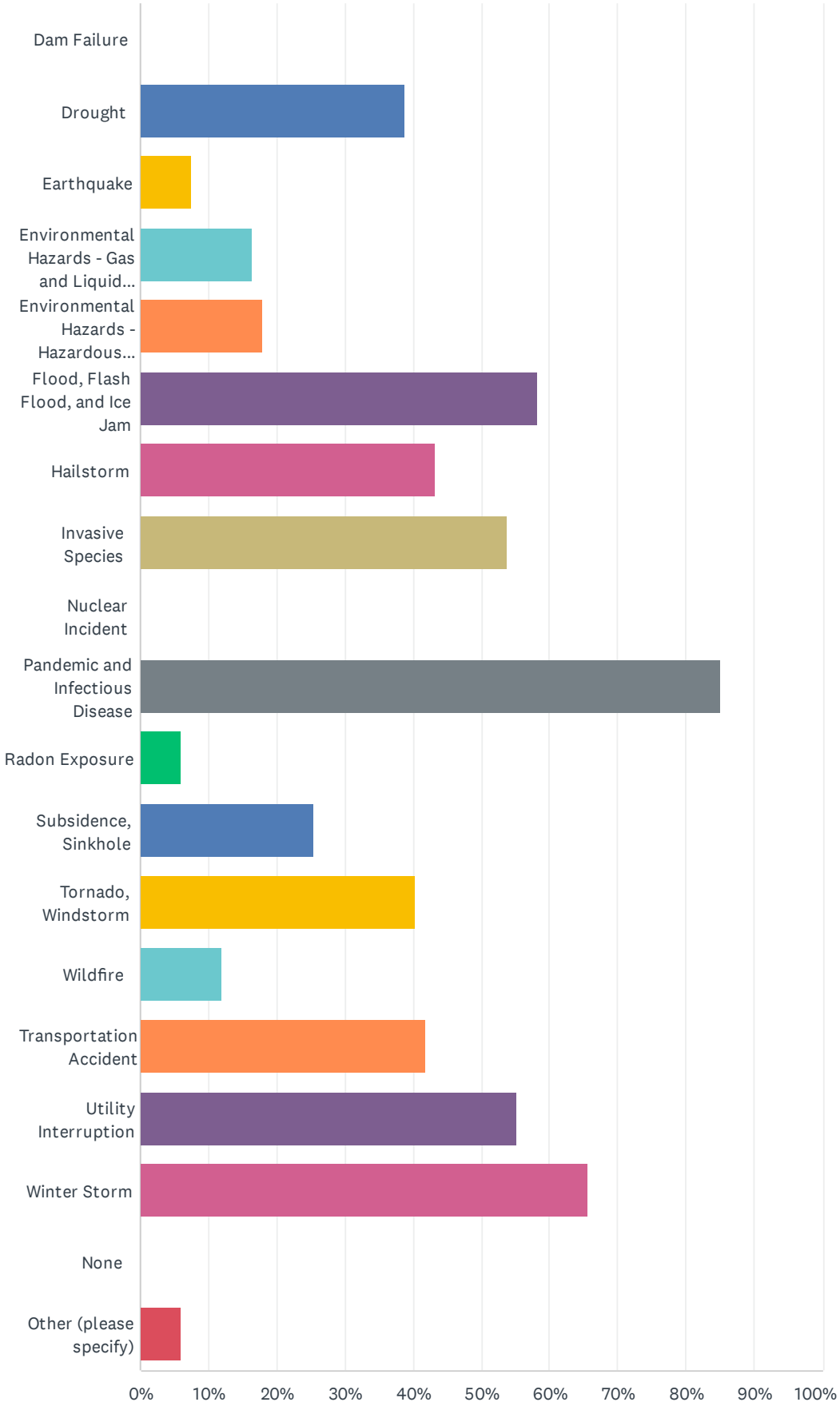
The update of this plan allows the County and participating jurisdictions to continue to be eligible for future pre-disaster mitigation funding from FEMA. Example of grant-eligible projects include home acquisitions or elevations – to either remove houses located in the floodplain to generate open space and increase flood storage or to raise their first floor above the FEMA base flood elevation – and local flood control measures.

Information about the Hazard Mitigation Plan is posted on the Lancaster County HMP plan website at https://co.lancaster.pa.us/2940/2022---2025-Hazard-Mitigation-Planning-P.

# # #

Q1 In the last five years, which of the following hazard events have you experienced in Lancaster County? Check all that apply.

Answered: 67 Skipped: 1

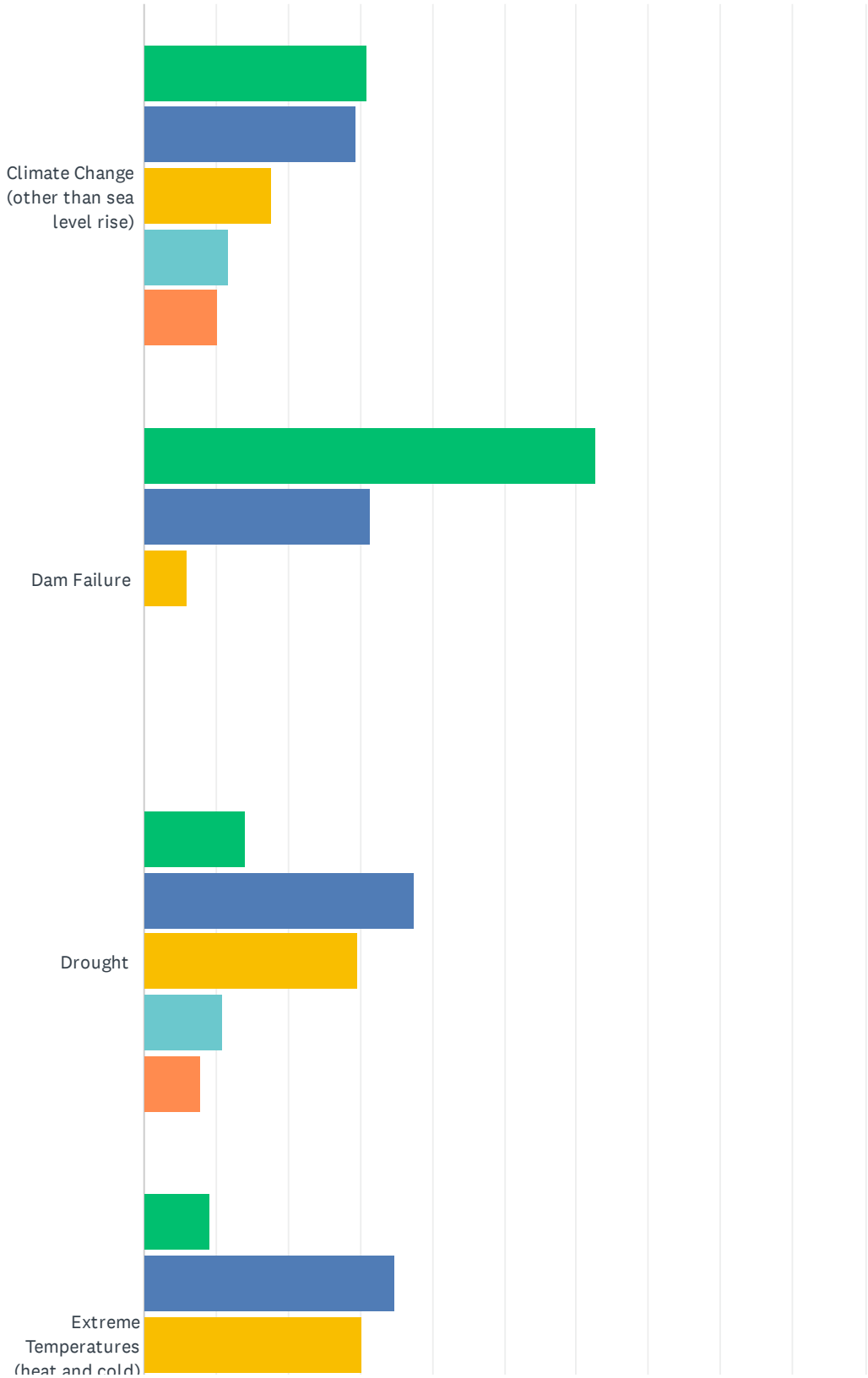

Dam Failure
Drought
Earthquake
Environmental Hazards - Gas and Liquid...
Environmental Hazards - Hazardous...
Flood, Flash Flood, and Ice Jam
Hailstorm
Invasive Species
Nuclear Incident
Pandemic and Infectious Disease
Radon Exposure
Subsidence, Sinkhole
Tornado, Windstorm
Wildfire
Transportation Accident
Utility Interruption
Winter Storm
None
Other (please specify)
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%

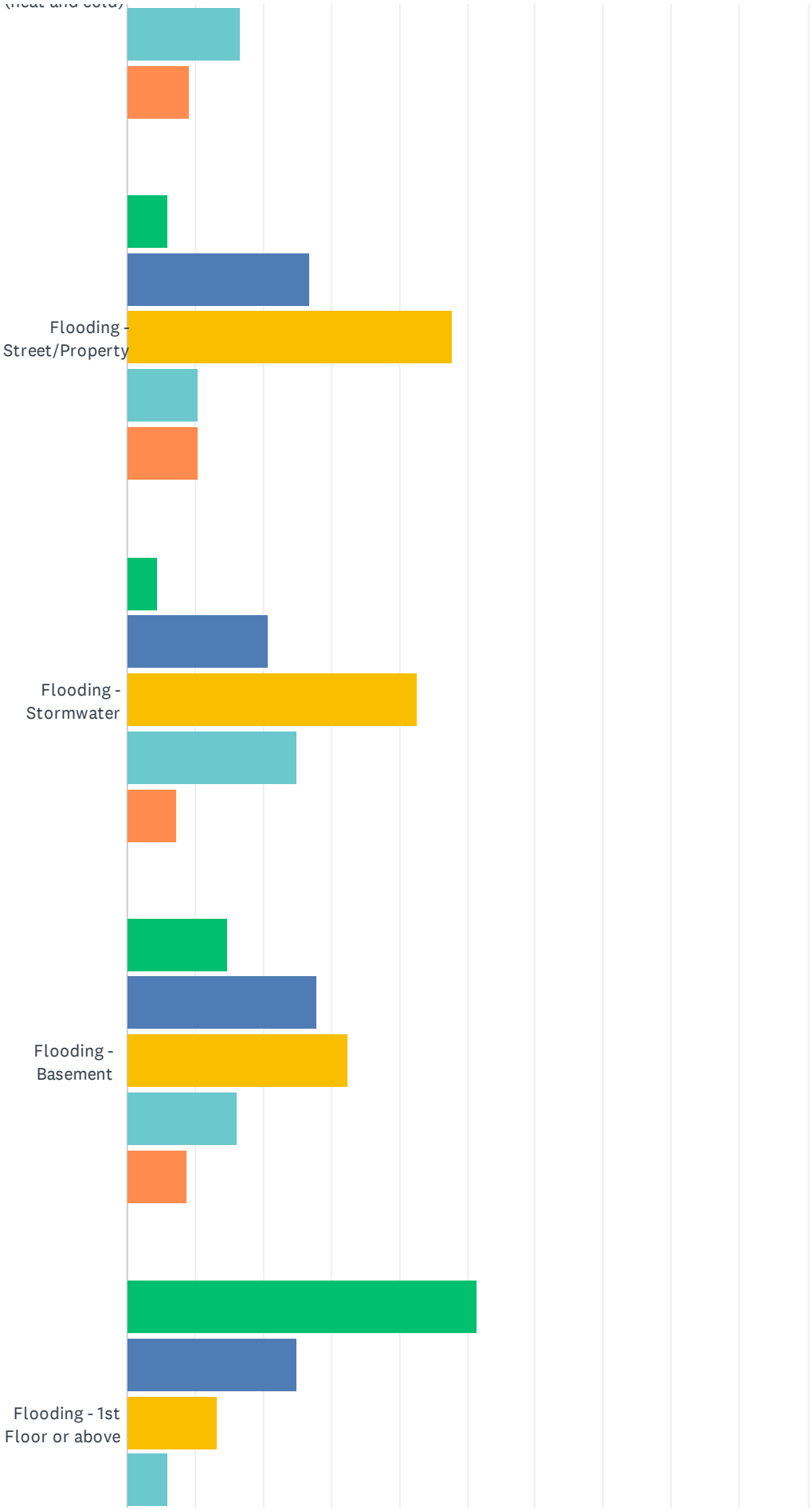
ANSWER CHOICES	RESPONSES	
Dam Failure	0.00%	0
Drought	38.81%	26
Earthquake	7.46%	5
Environmental Hazards - Gas and Liquid Pipelines	16.42%	11
Environmental Hazards - Hazardous Materials Releases	17.91%	12
Flood, Flash Flood, and Ice Jam	58.21%	39
Hailstorm	43.28%	29
Invasive Species	53.73%	36
Nuclear Incident	0.00%	0
Pandemic and Infectious Disease	85.07%	57
Radon Exposure	5.97%	4
Subsidence, Sinkhole	25.37%	17
Tornado, Windstorm	40.30%	27
Wildfire	11.94%	8
Transportation Accident	41.79%	28
Utility Interruption	55.22%	37
Winter Storm	65.67%	44
None	0.00%	0
Other (please specify)	5.97%	4
Total Respondents: 67		

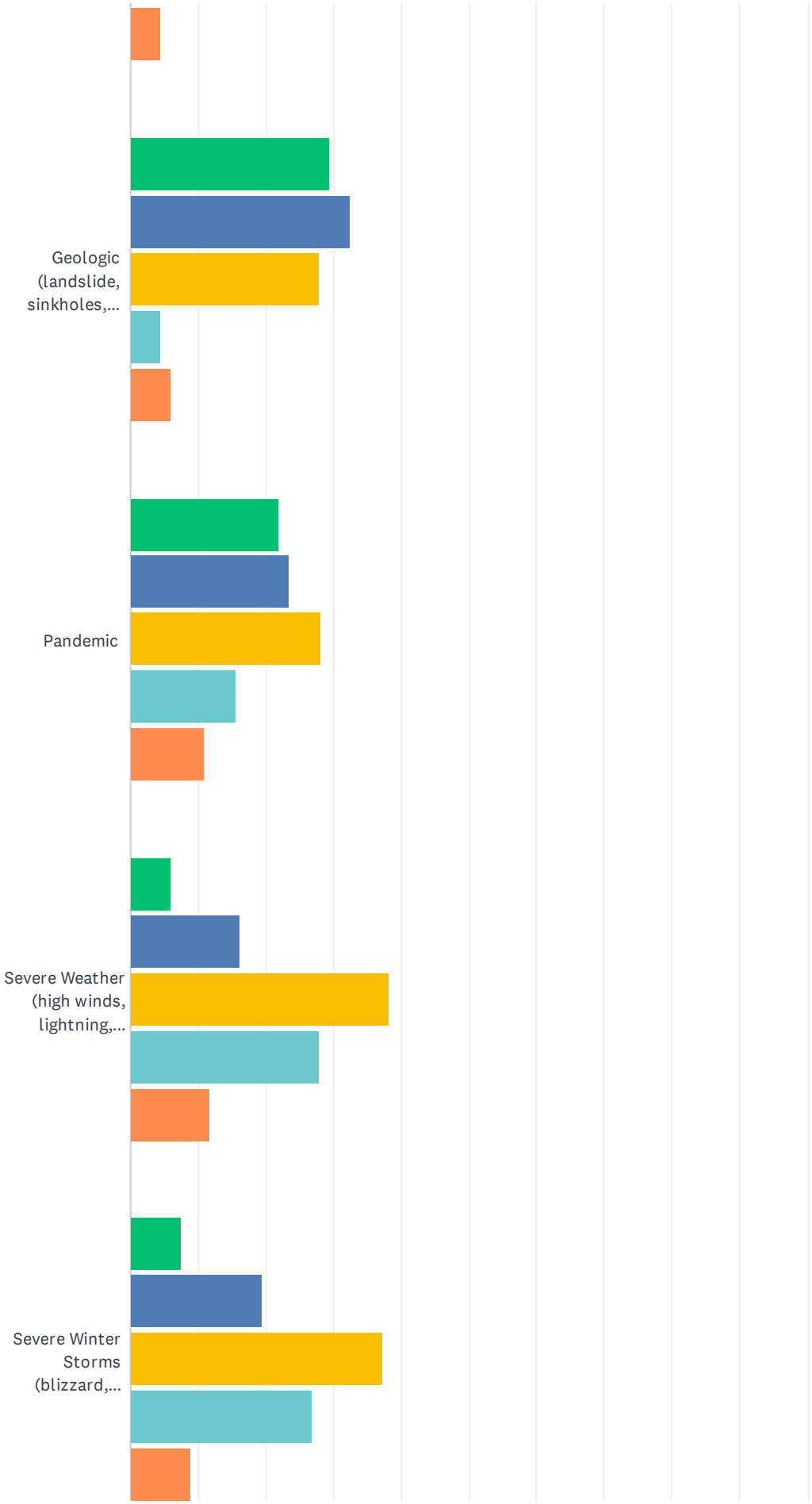
#	OTHER (PLEASE SPECIFY)	DATE
1	Biosolid pollution	11/16/2024 10:59 AM
2	Pollution, irritation, and risk from neighbors' backyard fires, including bonfires in residential neighborhoods. Also, residents setting off fireworks near other people's homes.	5/8/2024 6:58 PM
3	Air quality/smoke	5/7/2024 4:54 PM
4	Fire, Elopement	1/10/2024 1:45 PM

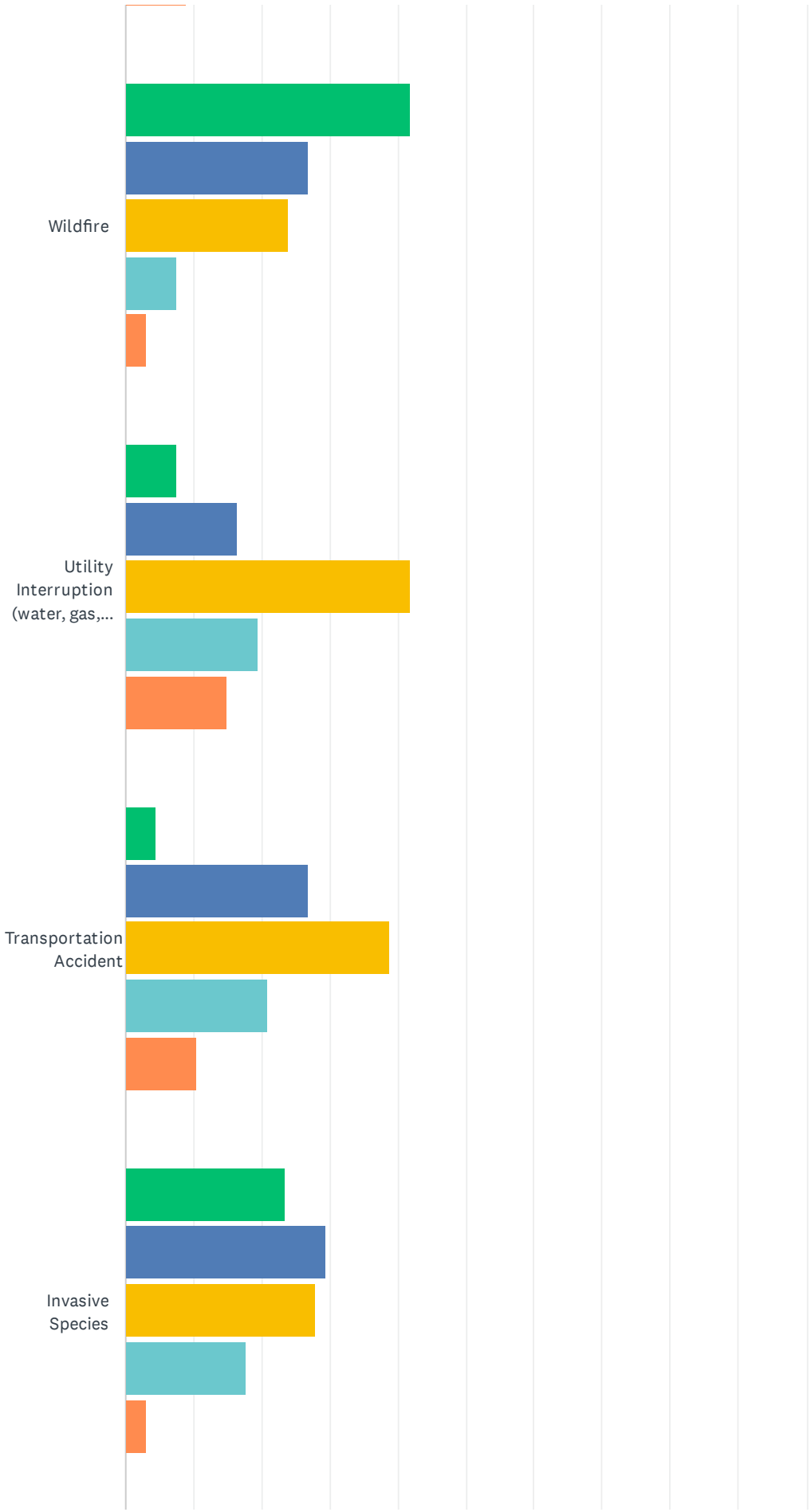
Q2 How concerned are you about the following hazards in Lancaster County? Please check one for each hazard.

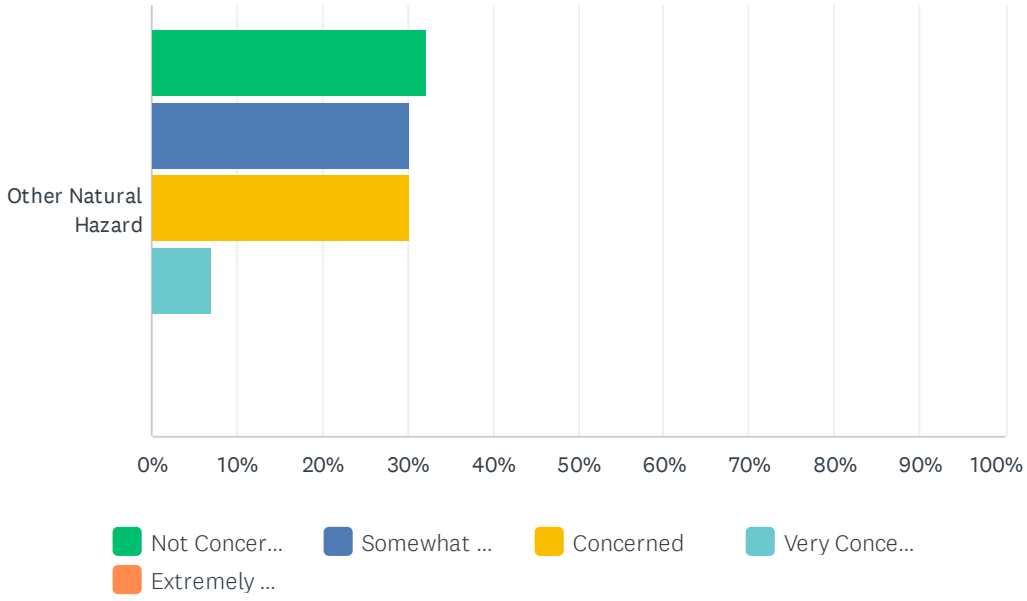
Answered: 68 Skipped: 0




Flooding - Street/Property
Flooding - Stormwater
Flooding - Basement
Flooding - 1st Floor or above


Geologic (landslide, sinkholes,...
Pandemic
Severe Weather (high winds, lightning,...
Severe Winter Storms (blizzard,...


Wildfire
Utility Interruption (water, gas,...
Transportation Accident
Invasive Species

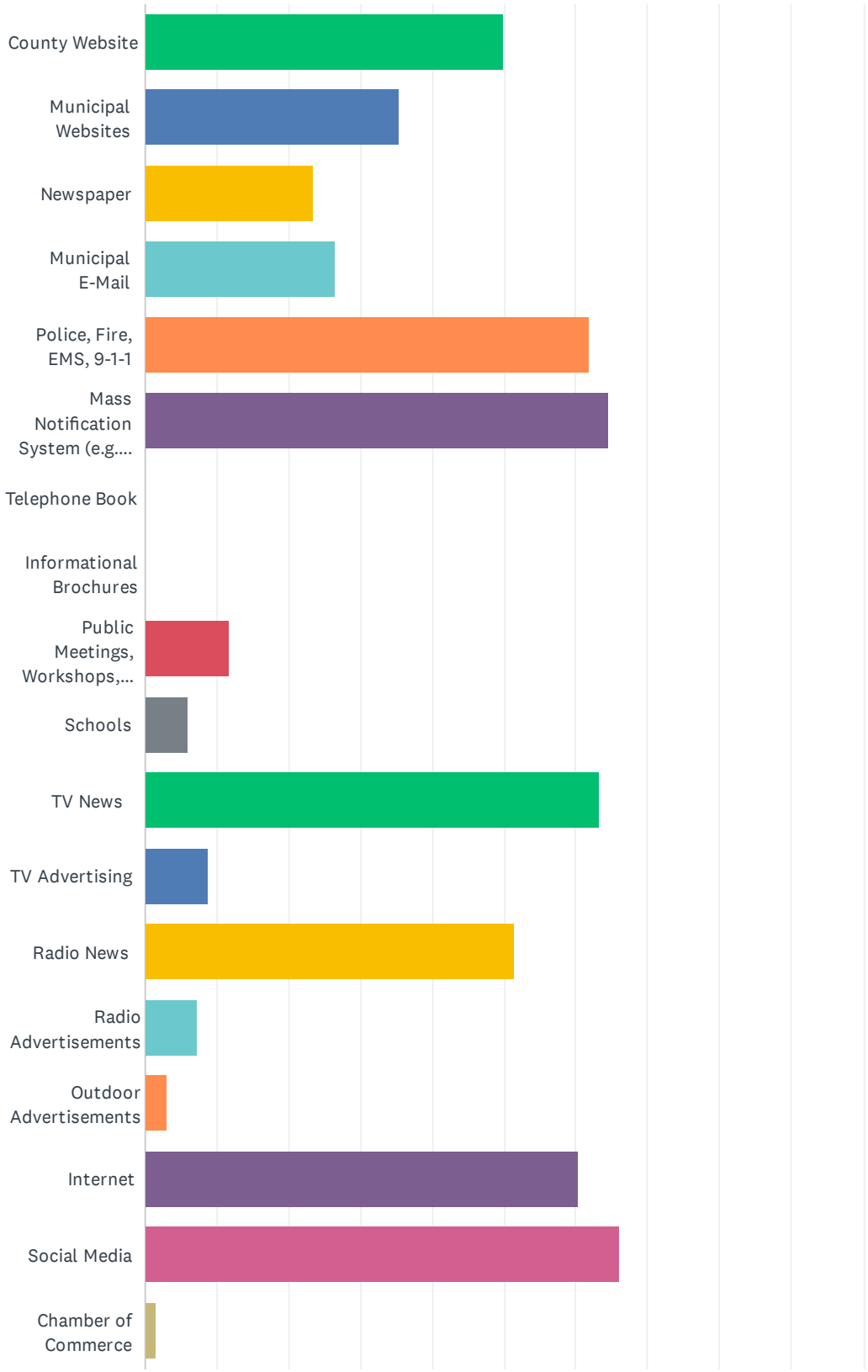

Other Natural Hazard
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Not Concer...
Somewhat ...
Concerned
Very Conce...
Extremely ...

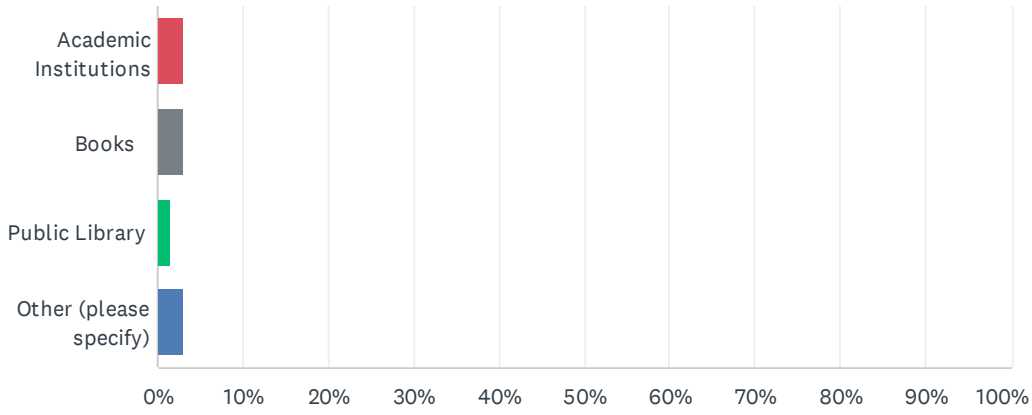
	NOT CONCERNED	SOMEWHAT CONCERNED	CONCERNED	VERY CONCERNED	EXTREMELY CONCERNED	TOTAL RESPONDENTS
Climate Change (other than sea level rise)	30.88% 21	29.41% 20	17.65% 12	11.76% 8	10.29% 7	68
Dam Failure	62.69% 42	31.34% 21	5.97% 4	0.00% 0	0.00% 0	67
Drought	14.06% 9	37.50% 24	29.69% 19	10.94% 7	7.81% 5	64
Extreme Temperatures (heat and cold)	9.09% 6	34.85% 23	30.30% 20	16.67% 11	9.09% 6	66
Flooding - Street/Property	5.97% 4	26.87% 18	47.76% 32	10.45% 7	10.45% 7	67
Flooding - Stormwater	4.41% 3	20.59% 14	42.65% 29	25.00% 17	7.35% 5	68
Flooding - Basement	14.71% 10	27.94% 19	32.35% 22	16.18% 11	8.82% 6	68
Flooding - 1st Floor or above	51.47% 35	25.00% 17	13.24% 9	5.88% 4	4.41% 3	68
Geologic (landslide, sinkholes, subsidence)	29.41% 20	32.35% 22	27.94% 19	4.41% 3	5.88% 4	68
Pandemic	21.88% 14	23.44% 15	28.13% 18	15.63% 10	10.94% 7	64
Severe Weather (high winds, lightning, hail)	5.88% 4	16.18% 11	38.24% 26	27.94% 19	11.76% 8	68
Severe Winter Storms (blizzard, heavy snow, ice)	7.46% 5	19.40% 13	37.31% 25	26.87% 18	8.96% 6	67
Wildfire	41.79% 28	26.87% 18	23.88% 16	7.46% 5	2.99% 2	67
Utility Interruption (water, gas, electric)	7.46% 5	16.42% 11	41.79% 28	19.40% 13	14.93% 10	67
Transportation Accident	4.48% 3	26.87% 18	38.81% 26	20.90% 14	10.45% 7	67
Invasive Species	23.53% 16	29.41% 20	27.94% 19	17.65% 12	2.94% 2	68
Other Natural Hazard	32.14% 18	30.36% 17	30.36% 17	7.14% 4	0.00% 0	56

#	OTHER (PLEASE SPECIFY)	DATE
1	Biosolids	11/16/2024 10:59 AM
2	Bridge collapse	6/3/2024 9:15 AM
3	Very concerned about environmental hazard contamination into waterways via combined sewer/stormwater systems and agricultural and other runoff pollution	5/7/2024 9:01 AM
4	train derailment and toxic pollution	2/10/2024 1:25 PM

Q3 How do you receive your information concerning a disaster? Check all that apply.

Answered: 68 Skipped: 0



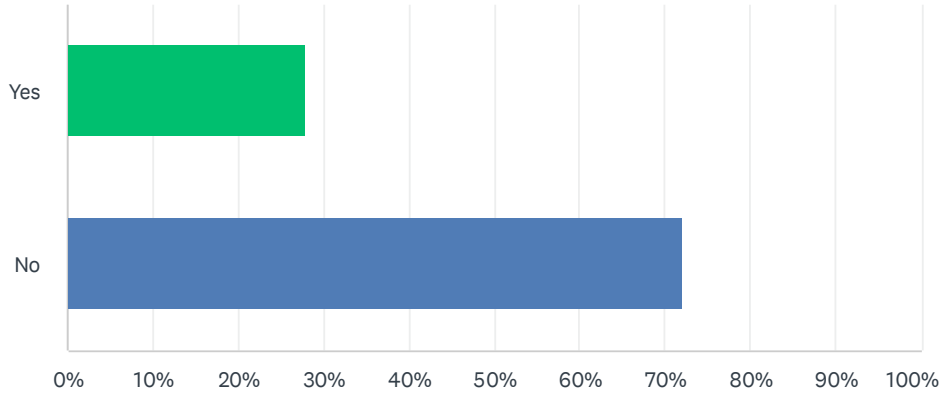


ANSWER CHOICES	RESPONSES	
County Website	50.00%	34
Municipal Websites	35.29%	24
Newspaper	23.53%	16
Municipal E-Mail	26.47%	18
Police, Fire, EMS, 9-1-1	61.76%	42
Mass Notification System (e.g., AlertPA, CodeRed)	64.71%	44
Telephone Book	0.00%	0
Informational Brochures	0.00%	0
Public Meetings, Workshops, Public Awareness Events	11.76%	8
Schools	5.88%	4
TV News	63.24%	43
TV Advertising	8.82%	6
Radio News	51.47%	35
Radio Advertisements	7.35%	5
Outdoor Advertisements	2.94%	2
Internet	60.29%	41
Social Media	66.18%	45
Chamber of Commerce	1.47%	1
Academic Institutions	2.94%	2
Books	2.94%	2
Public Library	1.47%	1
Other (please specify)	2.94%	2
Total Respondents: 68		

#	OTHER (PLEASE SPECIFY)	DATE
1	Print Media	2/2/2024 9:33 PM
2	Family	1/12/2024 6:40 AM

Q4 In the past, has your home been damaged by a hazard event? For example, flood waters entering the first floor of your home or pipes freezing during periods of cold temperatures.

Answered: 68 Skipped: 0



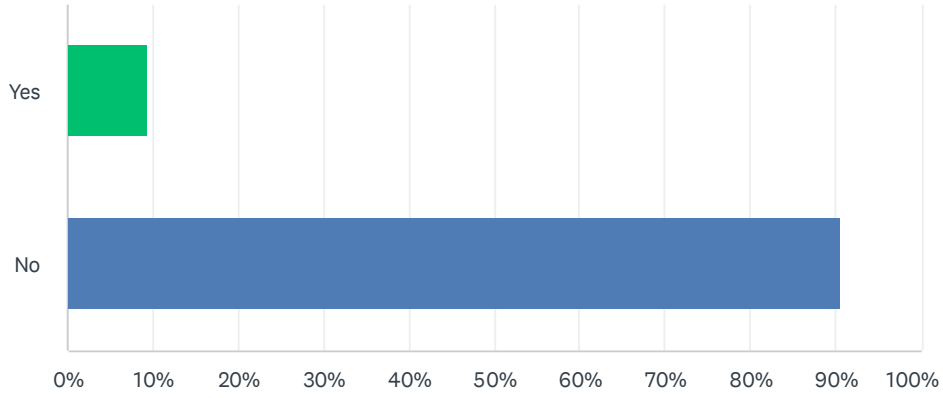
ANSWER CHOICES	RESPONSES	
Yes	27.94%	19
No	72.06%	49
TOTAL		68

#	PLEASE EXPLAIN THE TYPE OF DAMAGE SUSTAINED AND WHEN IT OCCURRED.	DATE
1	Basement flooding when sump pump failed.	12/18/2024 1:24 PM
2	Ice jam under roof during severe winter storm	6/11/2024 8:32 PM
3	Plumbing Failure	6/11/2024 2:43 PM
4	Some water in basement - Not major damage	5/9/2024 11:20 AM
5	Roof damage due to hail.	5/8/2024 6:58 PM
6	Hail.	5/8/2024 10:20 AM
7	Roof hail damage	5/7/2024 6:38 PM
8	Wind and hail damage	3/8/2024 7:07 PM
9	basement level flood waters about 10 years ago	2/10/2024 1:25 PM
10	High winds caused branches to impact our house causing damage to our siding. No roof or window damage.	2/2/2024 9:33 PM
11	We had ground level flooding of the skilled nursing facility </= 10yrs ago	1/24/2024 12:11 PM
12	Pipe froze due extremely low temperatures and resulted in flooding down multiple stories.	1/18/2024 6:56 AM
13	Basement flooding	1/14/2024 7:04 PM
14	I've had hail and wind damage to my roof and siding. I've had flooding in my home as well. Typically these have occurred during the warmer months.	1/11/2024 12:22 PM
15	Hail damage about 10 years ago	1/10/2024 1:45 PM

16	Basement flooding with over 3 feet of water from a flood.	1/10/2024 1:13 PM
17	We had significant flooding on the 1st floor that would flow down the hall, through resident rooms and common areas, requiring restoration services. This happened multiple times over the summer of 2019 through 2023 when we had a trench and French drain placed under the foundation.	1/10/2024 1:08 PM
18	Basement flooding due to high ground water levels, Hail damage to roof.	1/9/2024 4:14 PM

Q5 If you answered 'yes' above, did you report the damages to your local police or fire departments or to an emergency management agency?

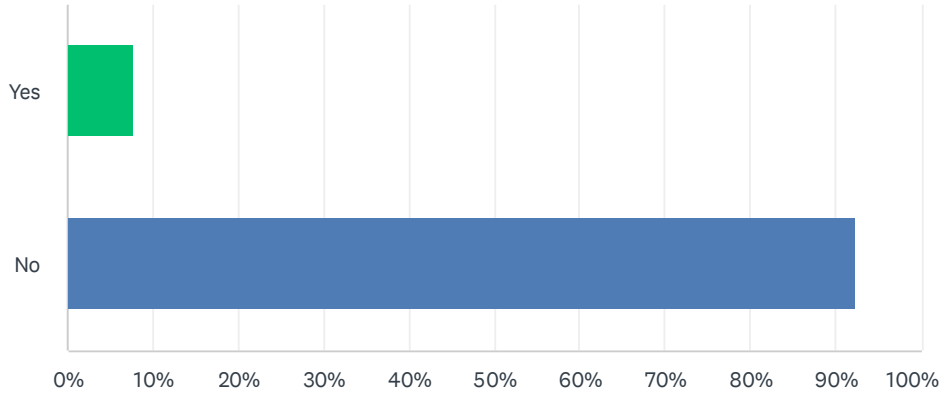
Answered: 43 Skipped: 25



ANSWER CHOICES	RESPONSES	
Yes	9.30%	4
No	90.70%	39
TOTAL		43

Q6 To the best of your knowledge, is your property located in a designated floodplain? If you do not know, click here to find out.

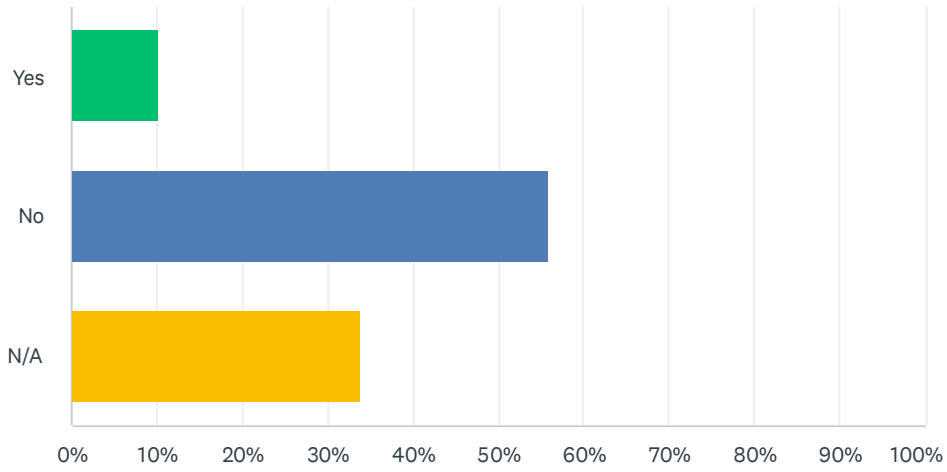
Answered: 65 Skipped: 3



ANSWER CHOICES	RESPONSES	
Yes	7.69%	5
No	92.31%	60
TOTAL		65

Q7 Do you have flood insurance on your property?

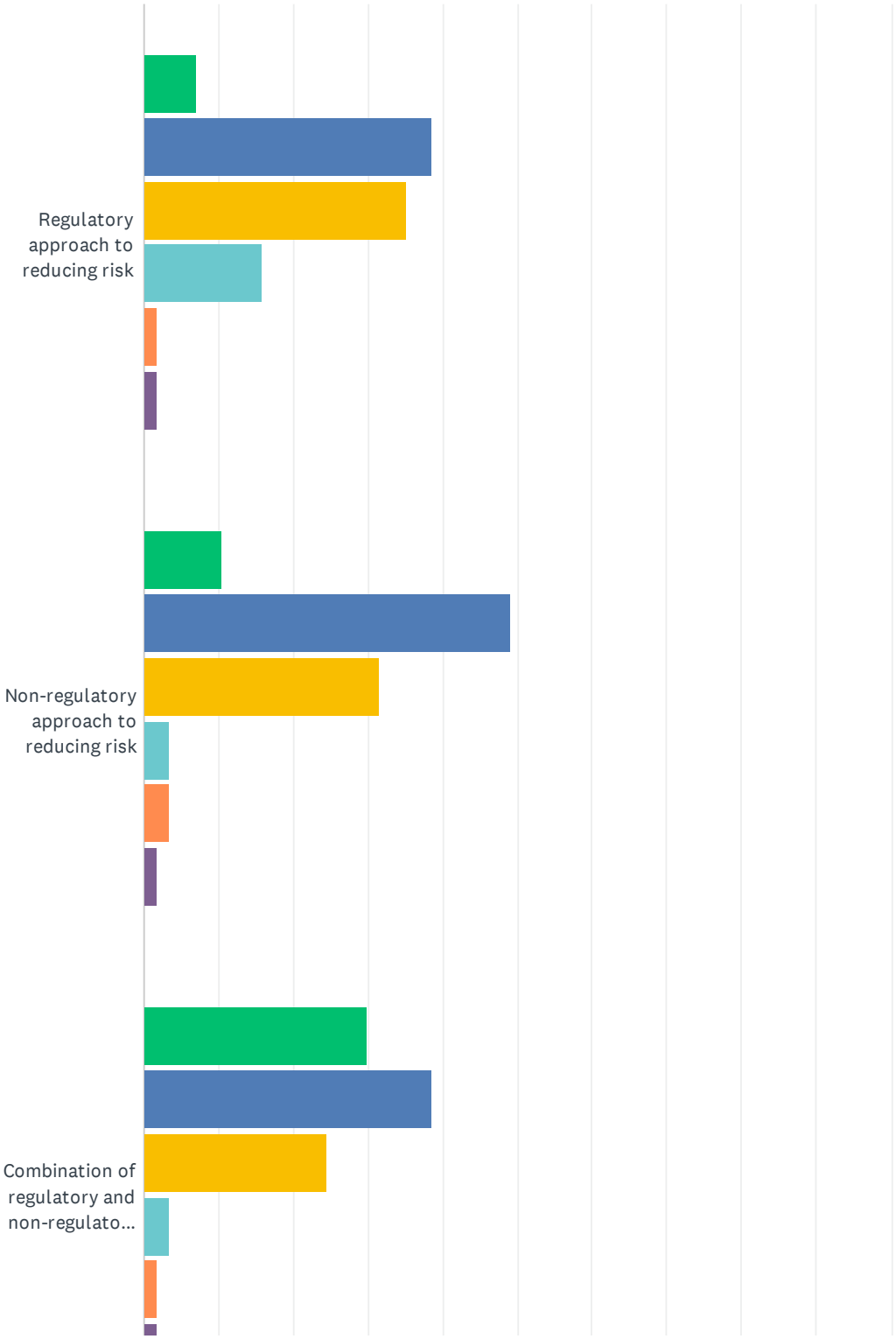
Answered: 68 Skipped: 0

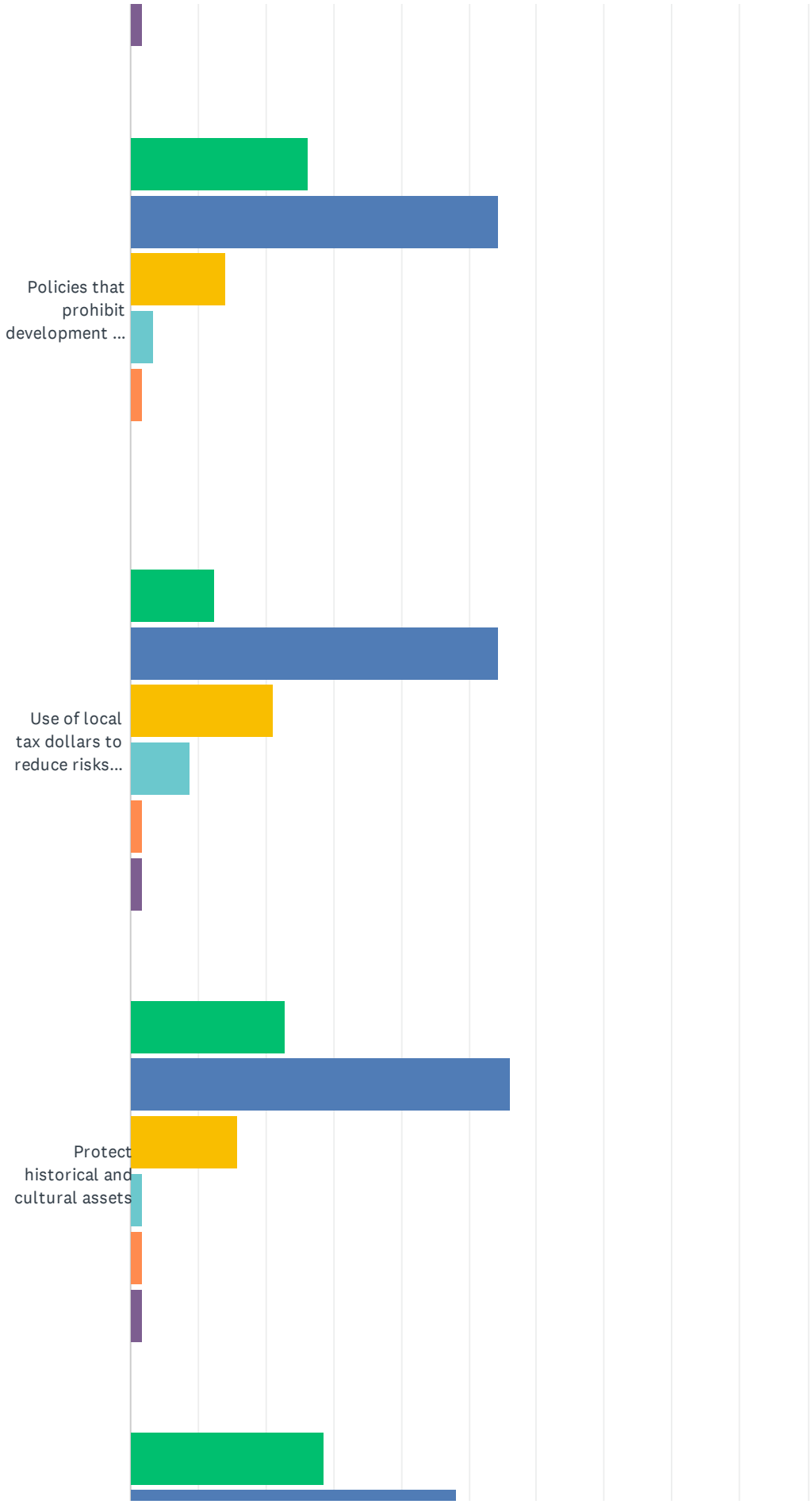


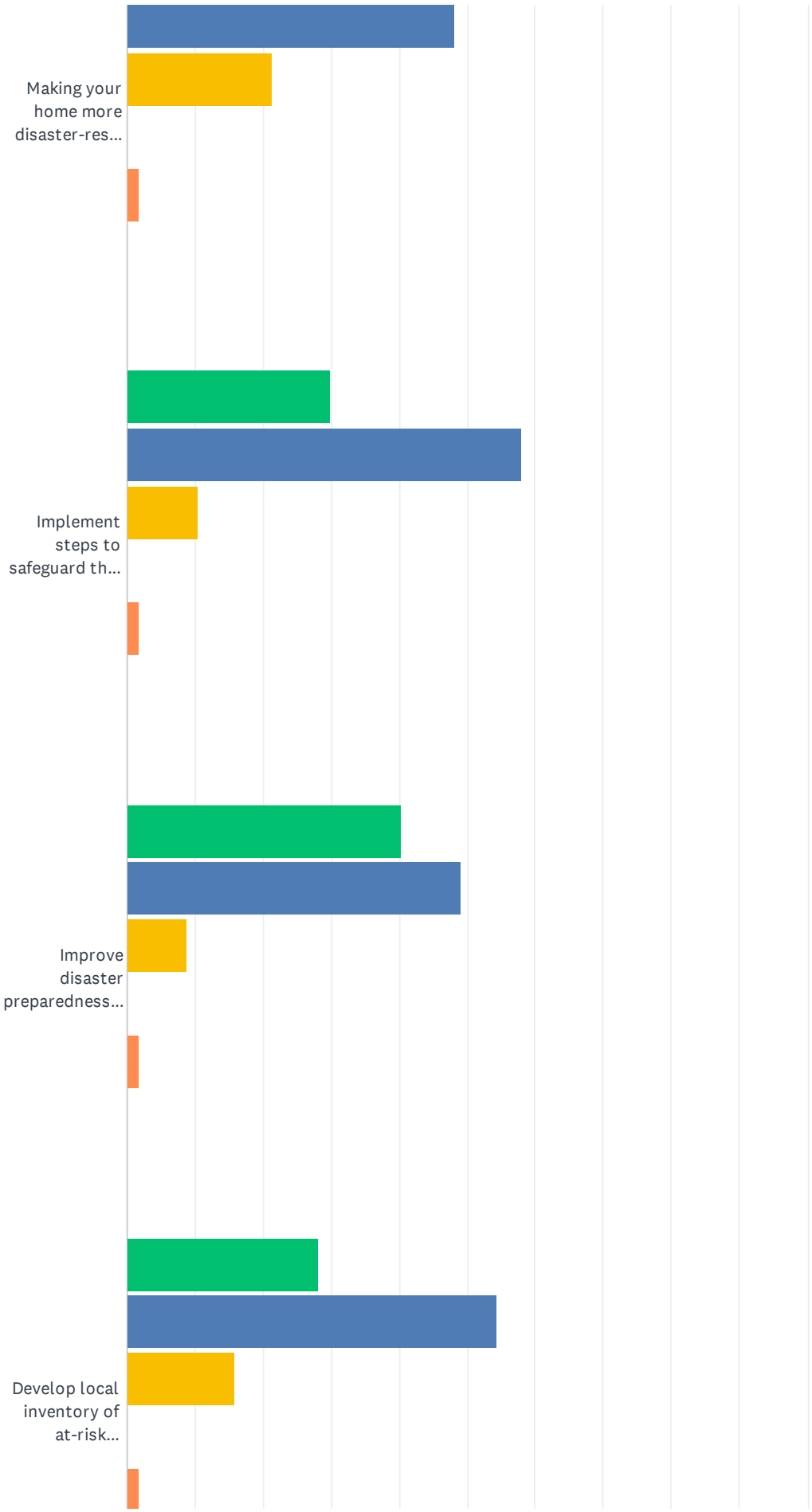
ANSWER CHOICES	RESPONSES	
Yes	10.29%	7
No	55.88%	38
N/A	33.82%	23
TOTAL		68

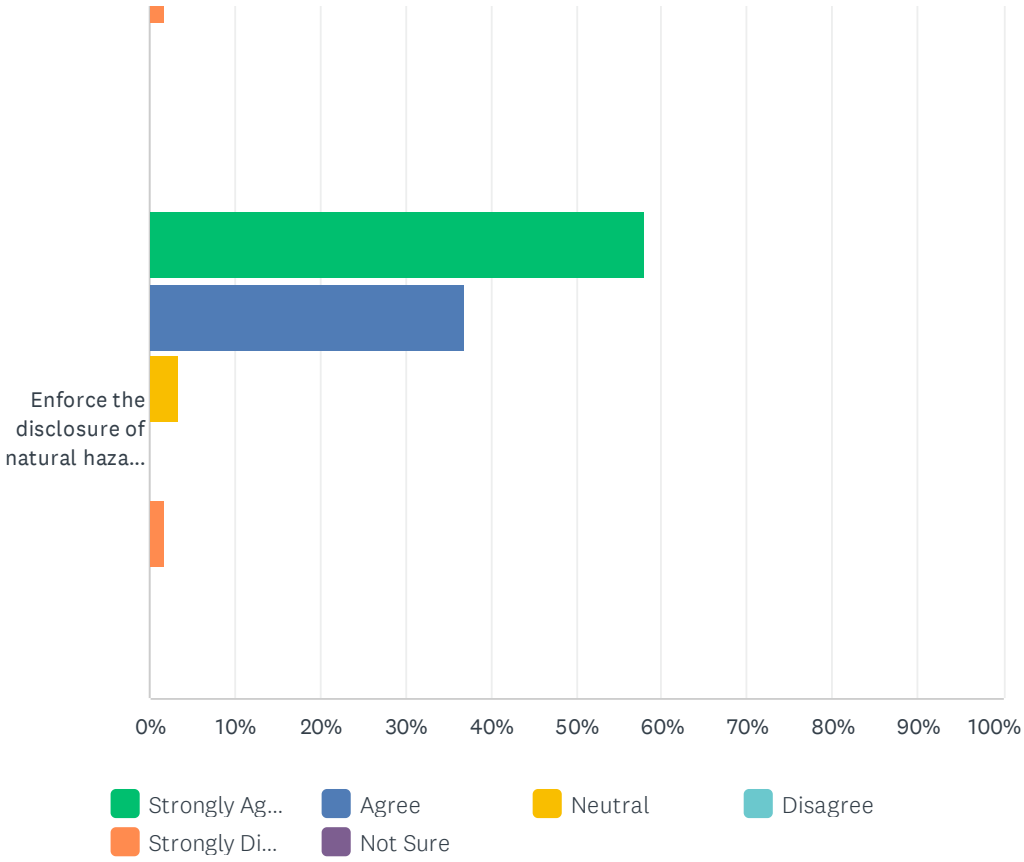
Q8 A number of activities can reduce your community's risk from hazards. These activities can be both regulatory and non-regulatory. Please check the box that best represents your opinion on the following strategies to reduce the risk and loss associated with hazards in Lancaster County.

Answered: 57 Skipped: 11




Policies that prohibit development ...
Use of local tax dollars to reduce risks...
Protect historical and cultural assets


Making your home more disaster-res...
Implement steps to safeguard th...
Improve disaster preparedness...
Develop local inventory of at-risk...

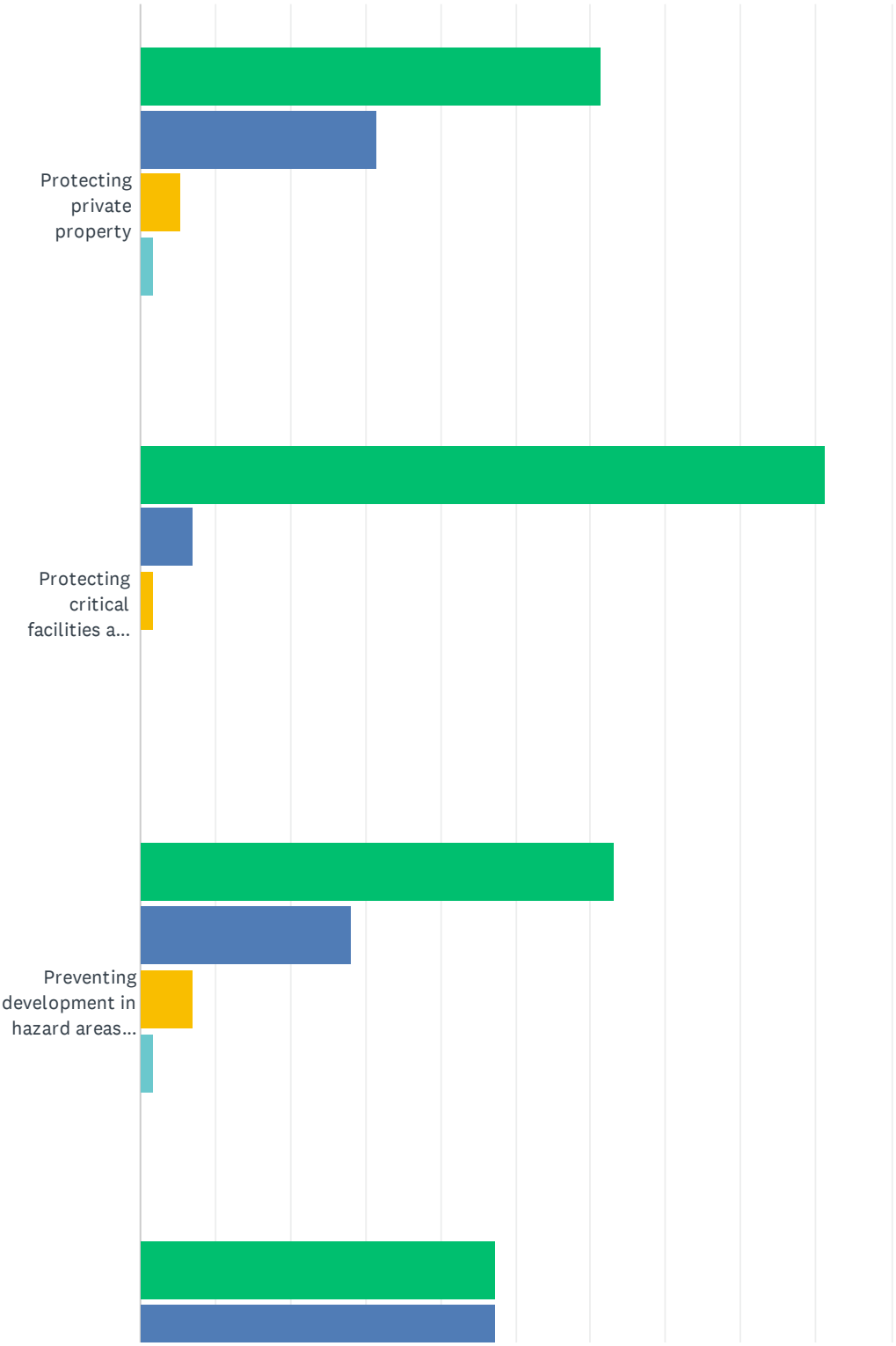


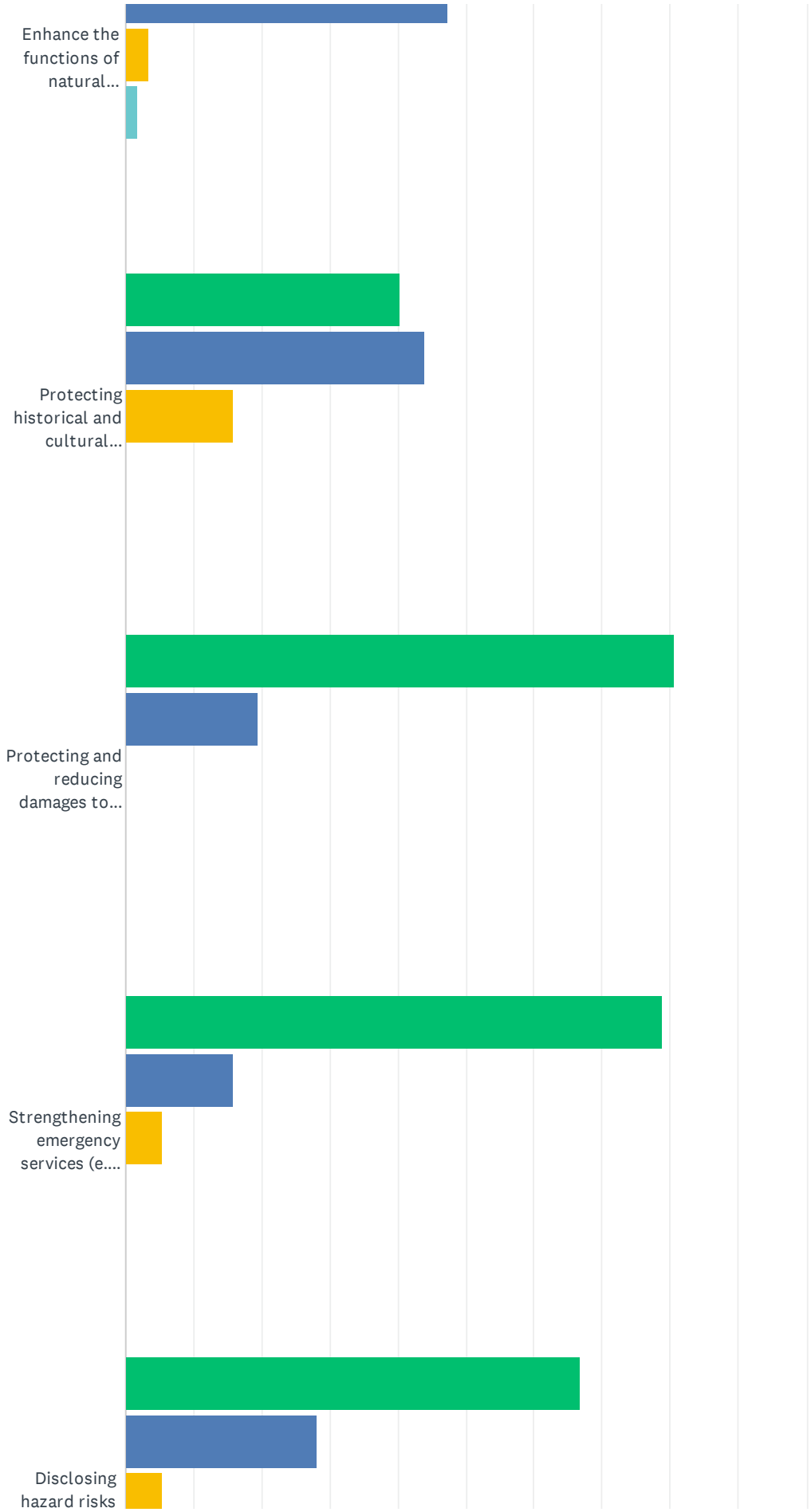
	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE	NOT SURE	TOTAL
Regulatory approach to reducing risk	7.02% 4	38.60% 22	35.09% 20	15.79% 9	1.75% 1	1.75% 1	57
Non-regulatory approach to reducing risk	10.53% 6	49.12% 28	31.58% 18	3.51% 2	3.51% 2	1.75% 1	57
Combination of regulatory and non-regulatory approaches to reducing risk	29.82% 17	38.60% 22	24.56% 14	3.51% 2	1.75% 1	1.75% 1	57
Policies that prohibit development in areas subject to hazards	26.32% 15	54.39% 31	14.04% 8	3.51% 2	1.75% 1	0.00% 0	57
Use of local tax dollars to reduce risks and losses from hazards	12.28% 7	54.39% 31	21.05% 12	8.77% 5	1.75% 1	1.75% 1	57
Protect historical and cultural assets	22.81% 13	56.14% 32	15.79% 9	1.75% 1	1.75% 1	1.75% 1	57
Making your home more disaster-resilient	28.57% 16	48.21% 27	21.43% 12	0.00% 0	1.79% 1	0.00% 0	56
Implement steps to safeguard the local economy following a disaster	29.82% 17	57.89% 33	10.53% 6	0.00% 0	1.75% 1	0.00% 0	57
Improve disaster preparedness of local schools	40.35% 23	49.12% 28	8.77% 5	0.00% 0	1.75% 1	0.00% 0	57
Develop local inventory of at-risk buildings and infrastructure	28.07% 16	54.39% 31	15.79% 9	0.00% 0	1.75% 1	0.00% 0	57
Enforce the disclosure of natural hazard risks during real estate transactions	57.89% 33	36.84% 21	3.51% 2	0.00% 0	1.75% 1	0.00% 0	57

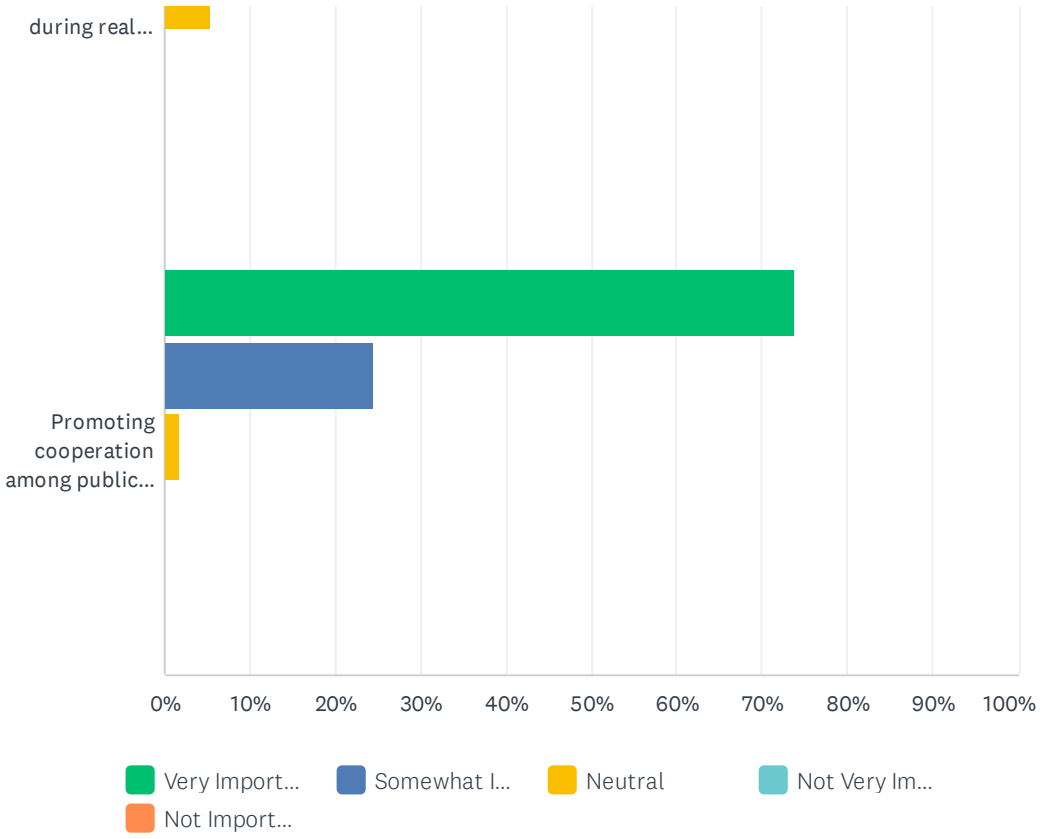
#	OTHER (PLEASE SPECIFY)	DATE
1	Ban burning by residents	5/8/2024 7:05 PM
2	workshops about risk and preparedness	2/10/2024 1:33 PM
3	Required activity from Emergency Management personnel.	1/11/2024 12:52 PM

Q9 Hazards can have a significant impact on a community, but planning for these events can help lessen the impacts. The following list will help us determine the priorities of our residents regarding planning for hazards in Lancaster County. Please tell us how important each one is to you.

Answered: 57 Skipped: 11




Enhance the functions of natural...
Protecting historical and cultural...
Protecting and reducing damages to...
Strengthening emergency services (e....
Disclosing hazard risks



	VERY IMPORTANT	SOMEWHAT IMPORTANT	NEUTRAL	NOT VERY IMPORTANT	NOT IMPORTANT	TOTAL
Protecting private property	61.40% 35	31.58% 18	5.26% 3	1.75% 1	0.00% 0	57
Protecting critical facilities and community lifelines	91.23% 52	7.02% 4	1.75% 1	0.00% 0	0.00% 0	57
Preventing development in hazard areas (e.g., restrict building in the floodplain)	63.16% 36	28.07% 16	7.02% 4	1.75% 1	0.00% 0	57
Enhance the functions of natural features (e.g., streams, wetlands)	47.37% 27	47.37% 27	3.51% 2	1.75% 1	0.00% 0	57
Protecting historical and cultural landmarks	40.35% 23	43.86% 25	15.79% 9	0.00% 0	0.00% 0	57
Protecting and reducing damages to utilities	80.70% 46	19.30% 11	0.00% 0	0.00% 0	0.00% 0	57
Strengthening emergency services (e.g., police, fire, EMS)	78.95% 45	15.79% 9	5.26% 3	0.00% 0	0.00% 0	57
Disclosing hazard risks during real estate transactions	66.67% 38	28.07% 16	5.26% 3	0.00% 0	0.00% 0	57
Promoting cooperation among public agencies, residents, non-profit organizations, and local businesses	73.68% 42	24.56% 14	1.75% 1	0.00% 0	0.00% 0	57

#	OTHER (PLEASE SPECIFY)	DATE
1	Requiring activity from local Emergency Management personnel.	1/11/2024 12:52 PM

Q10 Please identify any specific vulnerabilities that you are aware of in your city/township/borough (e.g. flood-prone areas or specific properties, critical facilities that lack backup power, etc.). Please list street names and other specific identifiers if possible.

Answered: 33 Skipped: 35

#	RESPONSES	DATE
1	Flooding Heritage Road Akron PA	6/24/2024 10:24 AM
2	Snow drifting on state and municipal roads, particularly Route 23 from Blue Ball to Morgantown.	6/12/2024 9:01 AM
3	People drive like crazy sometimes and they can damage utilities if they get into an accident. Enforce speed limits, especially for commercial vehicles. Traffic cameras can help with this.	6/3/2024 8:23 PM
4	Flood surges; drought impacting well water supplies.	5/20/2024 8:33 AM
5	N/A	5/9/2024 11:26 AM
6	Traffic/speeding enforcement is practically non-existent, which would exacerbate any hazardous developments.	5/8/2024 12:12 PM
7	Flooding of small tributaries.	5/8/2024 10:30 AM
8	N President Ave in Lancaster City is prone to flooding due to blocked drains.	5/7/2024 3:56 PM
9	Flash flooding occurs throughout Lancaster City, particularly on state-owned roads like Rt. 23 heading East out of the city, and on Rt. 999 and Rt. 461 in the Western part of Lancaster City	5/7/2024 9:04 AM
10	Additional generators needed for backup power for emergency situations along emergency evacuation routes. Flood prone area: Greenfield Road at Amtrak overpass, Millcross Road near former restaurant Waterfront, South Soudersburg Road near South Ronks Road All in East Lampeter Township	5/2/2024 11:02 AM
11	Flooding in basements on Front Street in Marietta. Hazardous materials in trains/train derailment. Hazardous materials at local industries, Armstrong, JAG Trucking, GSK, Texas Eastern	3/8/2024 7:13 PM
12	n/a	2/12/2024 10:56 AM
13	Front St., Marietta	2/11/2024 11:30 AM
14	train speed and derailment concerns Front St. flood prone streets Front St. Marietta	2/10/2024 1:33 PM
15	Fire House, Borough Office	2/8/2024 8:54 AM
16	Large group settings: Cherry Hill Road - Cherry Crest Adventure Farm. Transportation: Strasburg Railroad, Amtrak railroad, Route 30, Route 741	2/2/2024 9:40 PM
17	None that we are aware of	1/24/2024 12:17 PM
18	The largest concern for us as a school district related to vulnerabilities is sinkhole management. These are very hard to plan for and can cause significant issues.	1/22/2024 8:03 AM
19	na	1/19/2024 1:24 PM
20	Flood prone and sink holes - Marietta, PA and Mount Joy, PA.	1/18/2024 7:57 AM
21	Flooding on 772 and main st in Brownstown Sink holes in the Brownstown area	1/15/2024 10:44 AM
22	272 by 204 Herrville Road floods, floods and evacuation routes.	1/15/2024 10:20 AM
23	The intersection of Main Street (PA Rte 72) and Fruitville Pike is a high traffic area that floods	1/14/2024 12:04 PM

	frequently during heavy rains.	
24	N/a	1/12/2024 8:55 AM
25	Flooding - Greenfield Road at railroad underpass. Unit block of Pitney Road near Weis Markets, Millcross Road near Pine Drive, N Conestoga Blvd between E King Street / Ranck Mill Road. All nursing homes in the county should be required to have an emergency generator.	1/11/2024 12:52 PM
26	None	1/10/2024 3:48 PM
27	Old water main system that has none been upgraded in years and having several water main breaks a year.	1/10/2024 1:19 PM
28	Our Personal Care Home experiences frequent power outages. Our generator does not operate our elevator or kitchen area, that were additions to the original building. Thus, creating a difficult environment to prepare food for the residents of our community when the power is out.	1/10/2024 1:16 PM
29	Manheim Flooding Rapho PPL outages	1/10/2024 12:49 PM
30	Cropland flooding near country/back roads that in turn spills onto the roads.	1/9/2024 6:54 PM
31	Road flooding on Cabin Rd & Division Hwy.(Rte 322) in the Hinkletown area. Municipal and Emergency Service facilities without back-up power. New development construction with inadequate storm water management plans.	1/9/2024 4:25 PM
32	Broad Street in Lititz. The little creek with the ducks.	1/9/2024 12:44 PM
33	High water creates flooding on N/S Conestoga Blvd in Lancaster. There is no signage near these areas	1/9/2024 10:59 AM

Q11 Please identify any specific vulnerabilities that you are aware of in Lancaster County outside of your city/township/borough (e.g. flood-prone areas or specific properties, critical facilities that lack backup power, etc.). Please list the city/township/borough, street names, and other specific identifiers if possible.

Answered: 24 Skipped: 44

#	RESPONSES	DATE
1	Flooding along Streams and Rivers	6/24/2024 10:24 AM
2	Route 222 flooding at Sandy Beach West Earl Township?	6/12/2024 9:01 AM
3	N/A	5/9/2024 11:26 AM
4	Riparian buffers lacking, particularly on Amish farms. Overfarming from large farms causing soil loss yearly. Chicken houses burning chickens almost daily causing or adding to already poor air quality, as well as exponential increases in the fly population.	5/8/2024 12:12 PM
5	Small creek/tributary flooding	5/8/2024 10:30 AM
6	NA	5/7/2024 3:56 PM
7	Route 340 flooding in Salisbury Township	5/2/2024 11:02 AM
8	n/a	2/12/2024 10:56 AM
9	Not aware of any	2/11/2024 11:30 AM
10	None that wee are aware of	1/24/2024 12:17 PM
11	None at this time	1/22/2024 8:03 AM
12	na	1/19/2024 1:24 PM
13	.	1/18/2024 7:57 AM
14	Several years ago on Labor Day weekend, there was a torrential rain storm that flooded many areas. I was most surprised about the amount of rain that pooled in several spots and flooded Rte 283, including near the Manheim-Mt. Joy exit.	1/14/2024 12:04 PM
15	N/a	1/12/2024 8:55 AM
16	New Holland Avenue and Plum Street underneath Amtrak Bridge. Ensure major highways (222, 30, 283) are free from debris to avoid flooding like Philadelphia experienced.	1/12/2024 6:46 AM
17	power lines subject to hazards everywhere	1/11/2024 5:51 PM
18	Flooding - Route 222 in West Earl Township at Warwick Township line. Route 772 in West Earl Township near Cocalico Road (Cocalico Creek), Old Mill Road in Ephrata Borough, Every Road in West Earl Township that runs near the Conestoga River.	1/11/2024 12:52 PM
19	none	1/10/2024 3:48 PM
20	NA	1/10/2024 1:19 PM
21	N/A	1/10/2024 1:16 PM
22	Flooding	1/10/2024 12:49 PM
23	Increased emphasis on driving through water on roadways, turn around- don't drown, etc.	1/9/2024 4:25 PM
24	Conestoga River, Chicques Creek	1/9/2024 12:44 PM

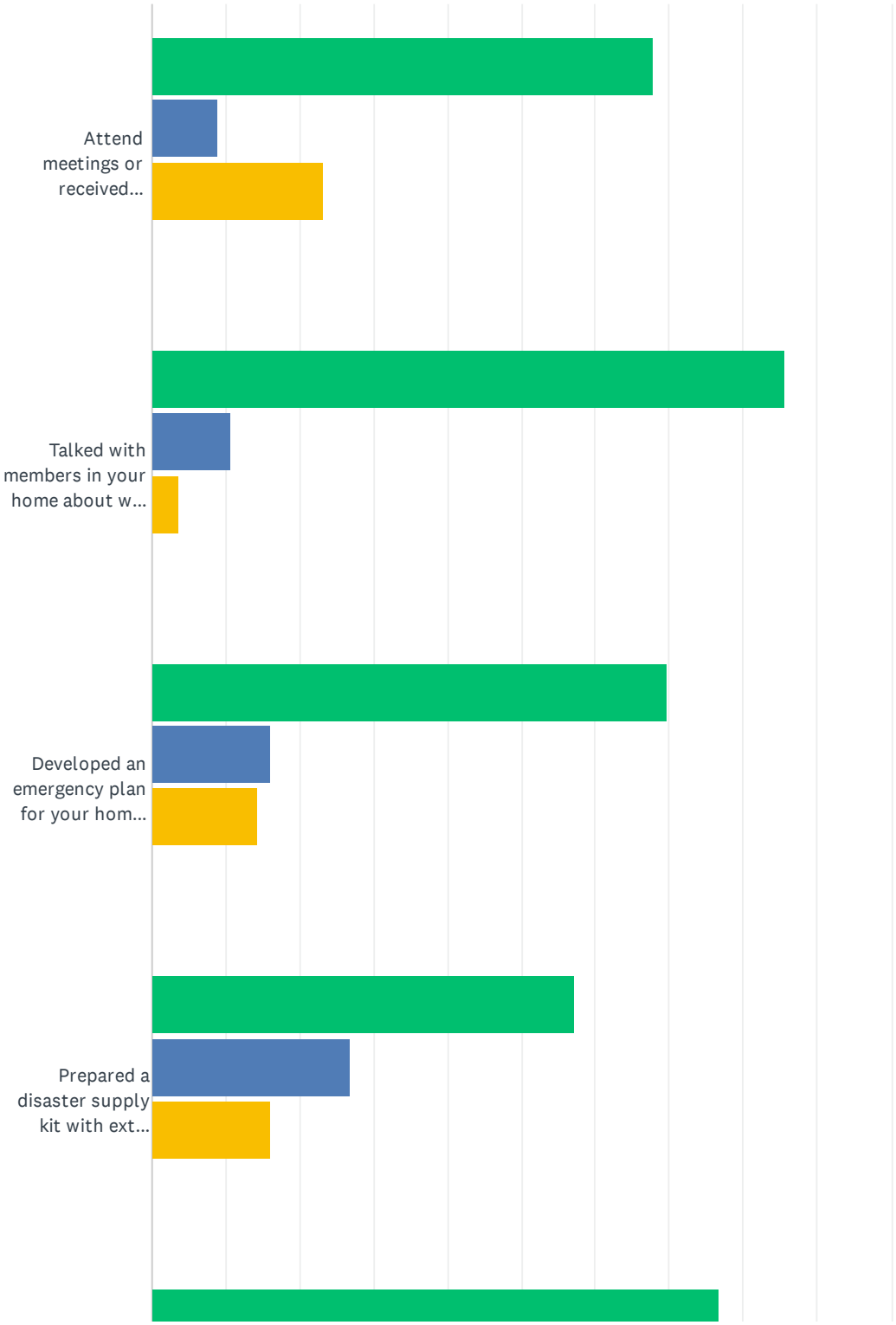
Q12 Do you have any other comments, questions, or concerns regarding hazard mitigation in Lancaster County?

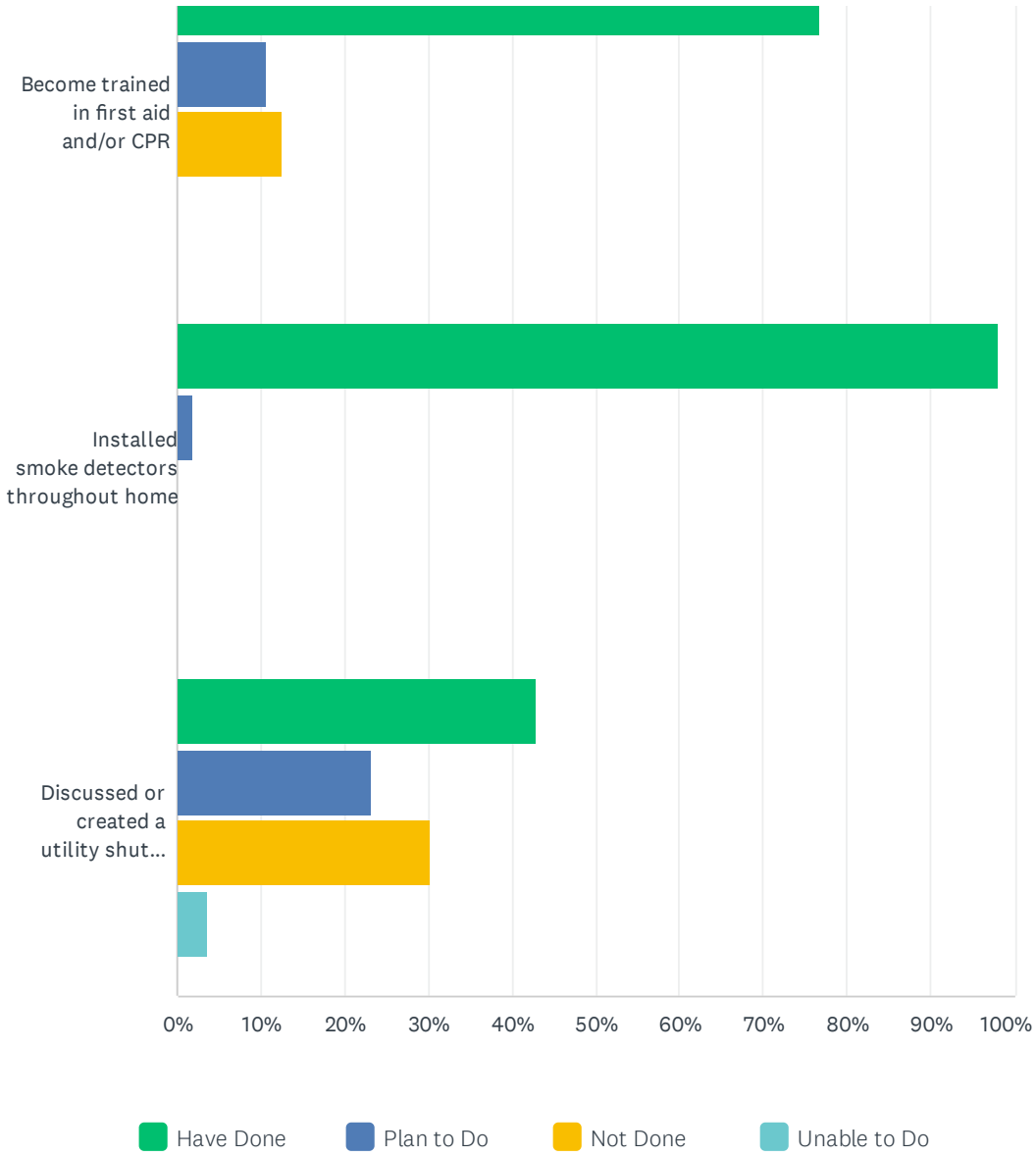
Answered: 23 Skipped: 45

#	RESPONSES	DATE
1	no	6/24/2024 10:24 AM
2	No	6/12/2024 9:01 AM
3	No	5/9/2024 11:26 AM
4	Please consider a ban on ALL residential burning and backyard fires. They create pollution, potential health issues, and fire risk. Ban farmers from burning too, on their property. This creates a lot of pollution.	5/8/2024 7:05 PM
5	Storm water runoff running behind all the houses on Gary Drive and Thomas Road. There are no drains and all the water is eroding the ground leaving huge divots and exposed	5/8/2024 4:57 PM
6	No	5/8/2024 12:12 PM
7	None	5/8/2024 10:30 AM
8	Increase planning for residents experiencing homeless and non native speakers	5/7/2024 3:56 PM
9	nope	2/12/2024 10:56 AM
10	None	2/11/2024 11:30 AM
11	Main concern is train derailments and speed of trains other concern is extreme weather and flooding and working on mitigation efforts	2/10/2024 1:33 PM
12	None	1/24/2024 12:17 PM
13	No	1/22/2024 8:03 AM
14	na	1/19/2024 1:24 PM
15	We should have more staffing to cover our needs.	1/18/2024 7:57 AM
16	I applaud the effort to get the county citizens and visitors involved in this process. The survey is a great tool, but are there going to be any public meetings too?	1/14/2024 12:04 PM
17	More community education. Enforce building codes Do not develop vulnerable areas Build for the disaster, not blue sky	1/12/2024 8:55 AM
18	As evidenced by the pandemic, Lancaster County needs it own Health organization to control our own decision making. We shouldn't wait for another pandemic.	1/12/2024 6:46 AM
19	No	1/11/2024 12:52 PM
20	Not at this time.	1/10/2024 3:48 PM
21	Not at this time.	1/10/2024 1:19 PM
22	No	1/10/2024 1:16 PM
23	no not at this time	1/10/2024 12:49 PM

Q13 In the following list, please check those activities that you have done in your home, plan to do in the near future, have not done, or are unable to do. Please check one answer for each activity that you or someone in your household have done.

Answered: 56 Skipped: 12



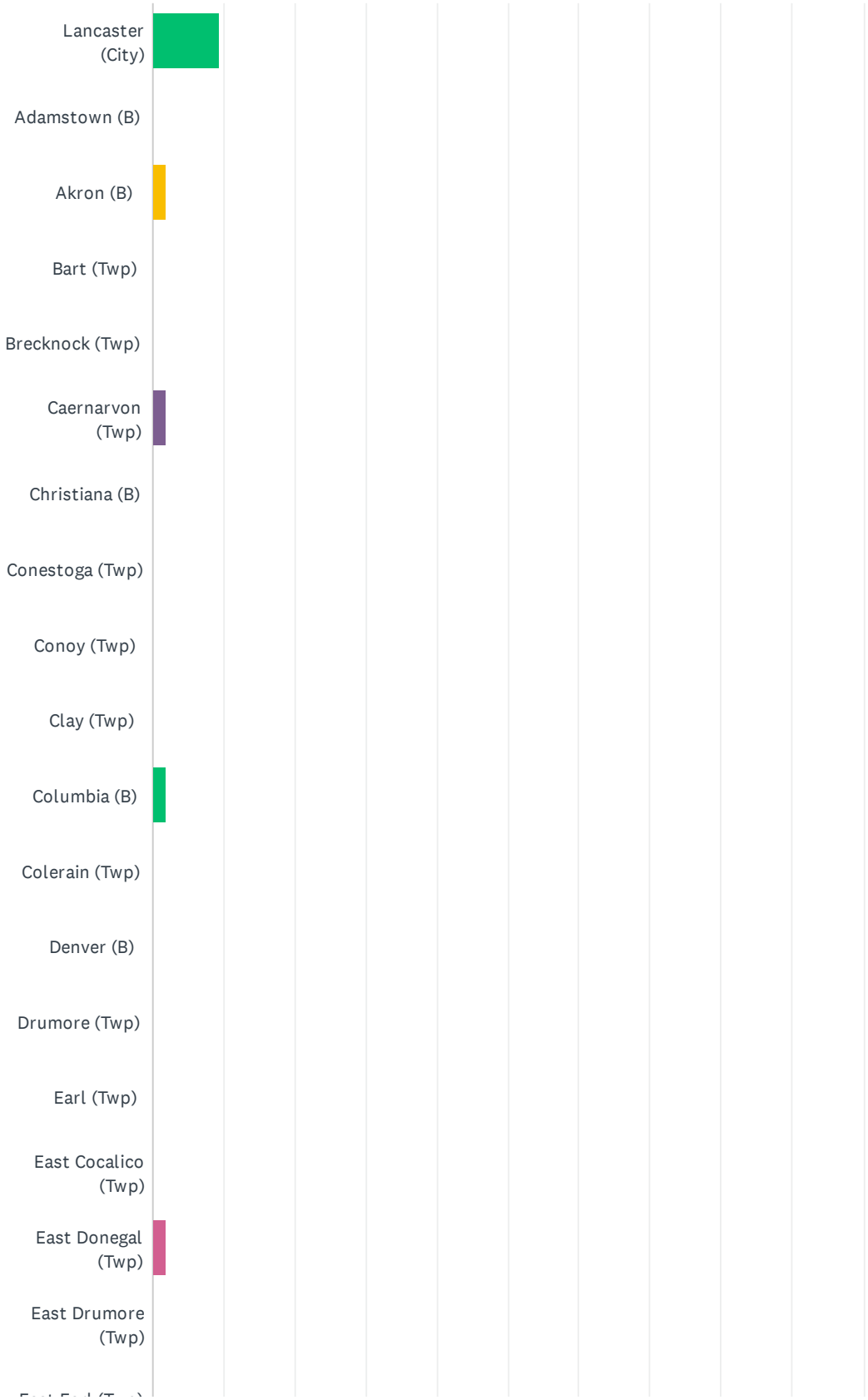


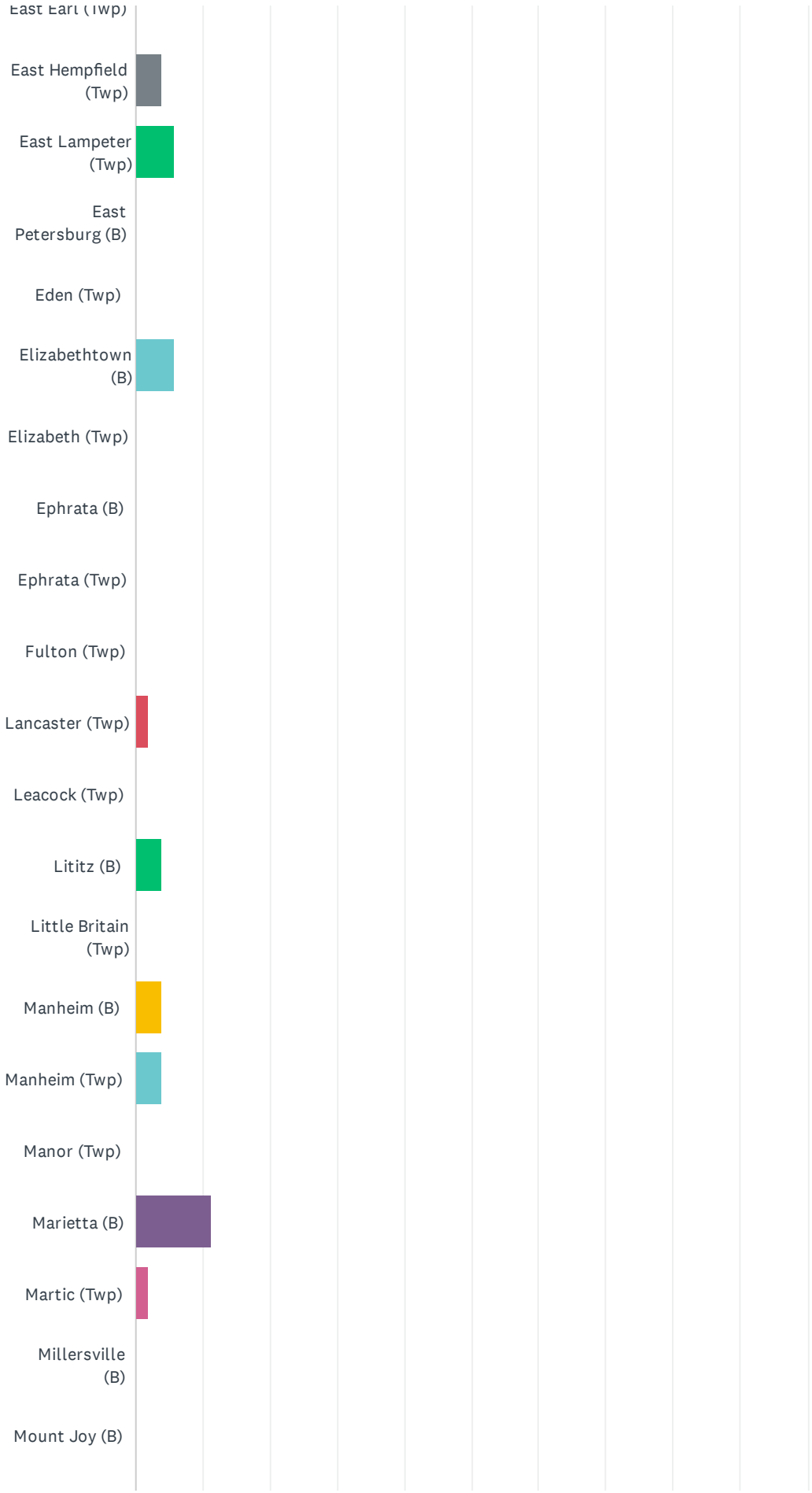
	HAVE DONE	PLAN TO DO	NOT DONE	UNABLE TO DO	TOTAL
Attend meetings or received information on natural disasters or emergency preparedness	67.86% 38	8.93% 5	23.21% 13	0.00% 0	56
Talked with members in your home about what to do in case of a disaster or emergency	85.71% 48	10.71% 6	3.57% 2	0.00% 0	56
Developed an emergency plan for your home and family in order to decide what everyone will do in the event of a disaster or emergency	69.64% 39	16.07% 9	14.29% 8	0.00% 0	56
Prepared a disaster supply kit with extra food, water, batteries, etc.	57.14% 32	26.79% 15	16.07% 9	0.00% 0	56
Become trained in first aid and/or CPR	76.79% 43	10.71% 6	12.50% 7	0.00% 0	56
Installed smoke detectors throughout home	98.18% 54	1.82% 1	0.00% 0	0.00% 0	55
Discussed or created a utility shutoff procedure in the event of a natural disaster	42.86% 24	23.21% 13	30.36% 17	3.57% 2	56

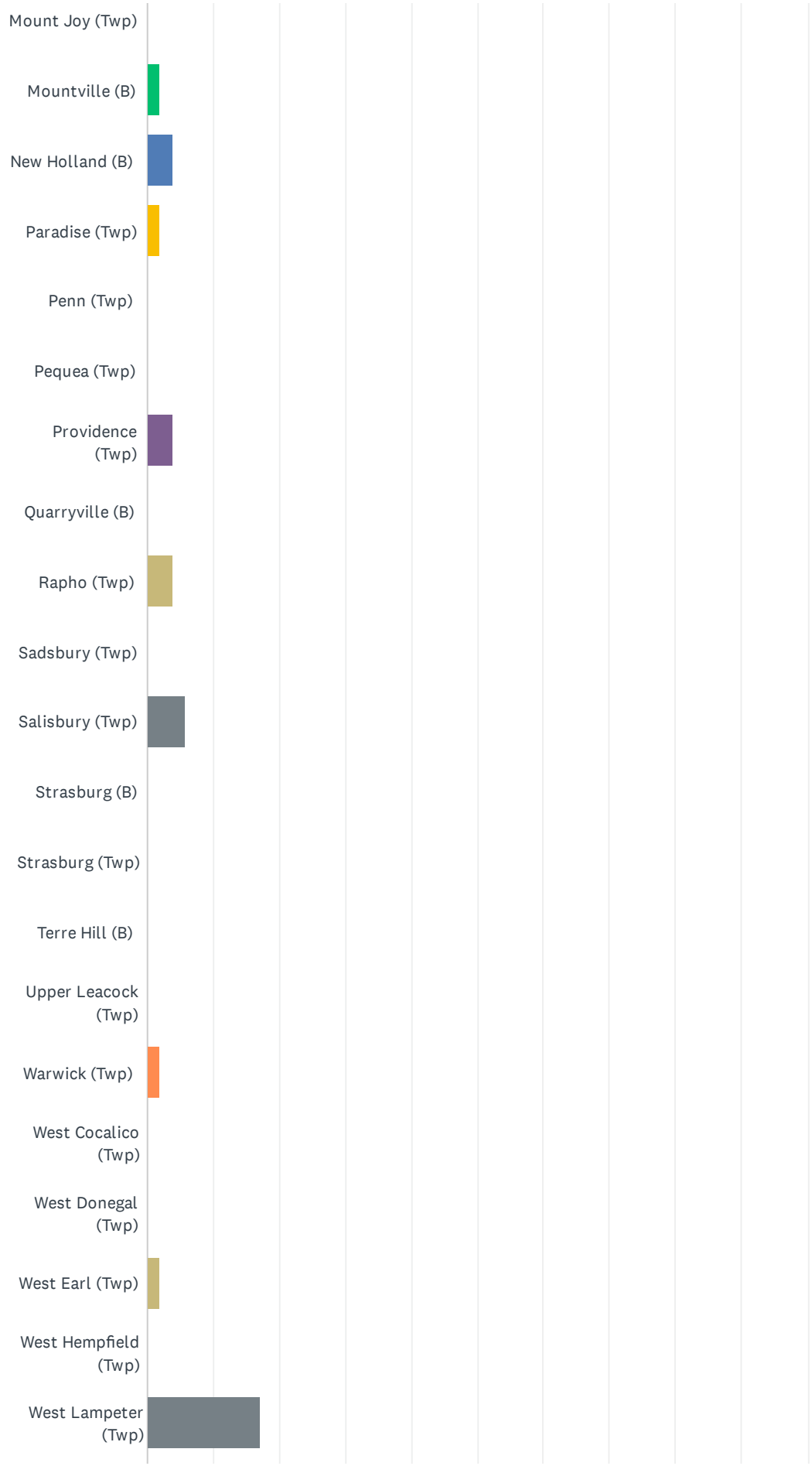
#	OTHER (PLEASE SPECIFY)	DATE
1	Installed CO2 alarms	2/8/2024 8:54 AM
2	Plan for evacuation and shelter in place. Video of home for insurance. Important documents in safe, in envelope in case of evacuation.	1/12/2024 8:55 AM

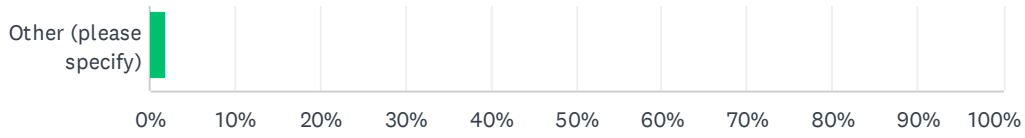
Q14 Please indicate the municipality in which you live:

Answered: 53 Skipped: 15




East Earl (Twp)
East Hempfield (Twp)
East Lampeter (Twp)
East Petersburg (B)
Eden (Twp)
Elizabethtown (B)
Elizabeth (Twp)
Ephrata (B)
Ephrata (Twp)
Fulton (Twp)
Lancaster (Twp)
Leacock (Twp)
Lititz (B)
Little Britain (Twp)
Manheim (B)
Manheim (Twp)
Manor (Twp)
Marietta (B)
Martic (Twp)
Millersville (B)
Mount Joy (B)


Mount Joy (Twp)
Mountville (B)
New Holland (B)
Paradise (Twp)
Penn (Twp)
Pequea (Twp)
Providence (Twp)
Quarryville (B)
Rapho (Twp)
Sadsbury (Twp)
Salisbury (Twp)
Strasburg (B)
Strasburg (Twp)
Terre Hill (B)
Upper Leacock (Twp)
Warwick (Twp)
West Cocalico (Twp)
West Donegal (Twp)
West Earl (Twp)
West Hempfield (Twp)
West Lampeter (Twp)


Other (please specify)
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%

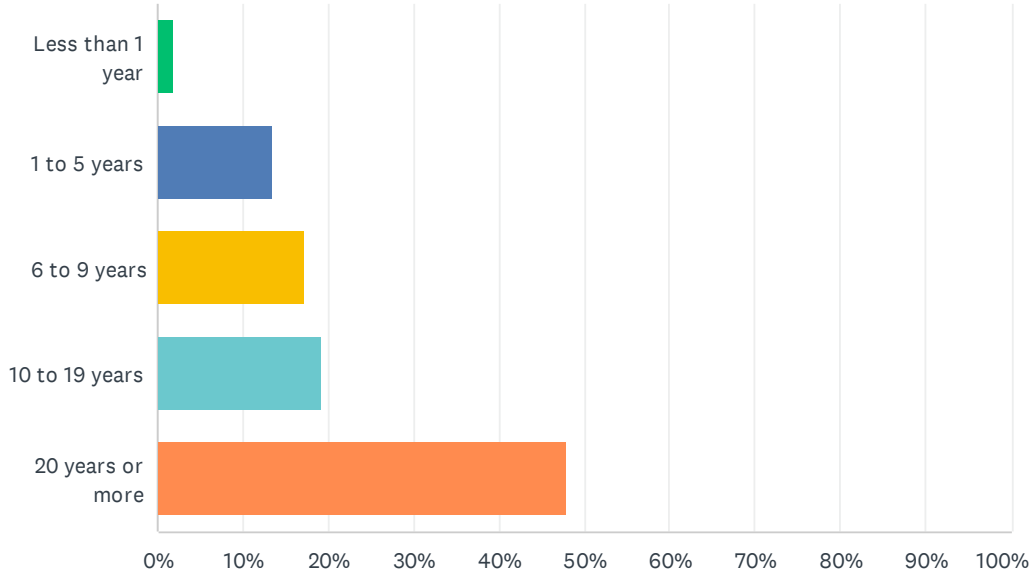
ANSWER CHOICES	RESPONSES	
Lancaster (City)	9.43%	5
Adamstown (B)	0.00%	0
Akron (B)	1.89%	1
Bart (Twp)	0.00%	0
Brecknock (Twp)	0.00%	0
Caernarvon (Twp)	1.89%	1
Christiana (B)	0.00%	0
Conestoga (Twp)	0.00%	0
Conoy (Twp)	0.00%	0
Clay (Twp)	0.00%	0
Columbia (B)	1.89%	1
Colerain (Twp)	0.00%	0
Denver (B)	0.00%	0
Drumore (Twp)	0.00%	0
Earl (Twp)	0.00%	0
East Cocalico (Twp)	0.00%	0
East Donegal (Twp)	1.89%	1
East Drumore (Twp)	0.00%	0
East Earl (Twp)	0.00%	0
East Hempfield (Twp)	3.77%	2
East Lampeter (Twp)	5.66%	3
East Petersburg (B)	0.00%	0
Eden (Twp)	0.00%	0
Elizabethtown (B)	5.66%	3
Elizabeth (Twp)	0.00%	0
Ephrata (B)	0.00%	0
Ephrata (Twp)	0.00%	0
Fulton (Twp)	0.00%	0
Lancaster (Twp)	1.89%	1
Leacock (Twp)	0.00%	0
Lititz (B)	3.77%	2
Little Britain (Twp)	0.00%	0

Manheim (B)	3.77%	2
Manheim (Twp)	3.77%	2
Manor (Twp)	0.00%	0
Marietta (B)	11.32%	6
Martic (Twp)	1.89%	1
Millersville (B)	0.00%	0
Mount Joy (B)	0.00%	0
Mount Joy (Twp)	0.00%	0
Mountville (B)	1.89%	1
New Holland (B)	3.77%	2
Paradise (Twp)	1.89%	1
Penn (Twp)	0.00%	0
Pequea (Twp)	0.00%	0
Providence (Twp)	3.77%	2
Quarryville (B)	0.00%	0
Rapho (Twp)	3.77%	2
Sadsbury (Twp)	0.00%	0
Salisbury (Twp)	5.66%	3
Strasburg (B)	0.00%	0
Strasburg (Twp)	0.00%	0
Terre Hill (B)	0.00%	0
Upper Leacock (Twp)	0.00%	0
Warwick (Twp)	1.89%	1
West Cocalico (Twp)	0.00%	0
West Donegal (Twp)	0.00%	0
West Earl (Twp)	1.89%	1
West Hempfield (Twp)	0.00%	0
West Lampeter (Twp)	16.98%	9
Other (please specify)	1.89%	1
Total Respondents: 53		

#	OTHER (PLEASE SPECIFY)	DATE
1	Chester County, work in Lancaster County in East Lampeter Township	5/2/2024 11:03 AM

Q15 How long have you lived here?

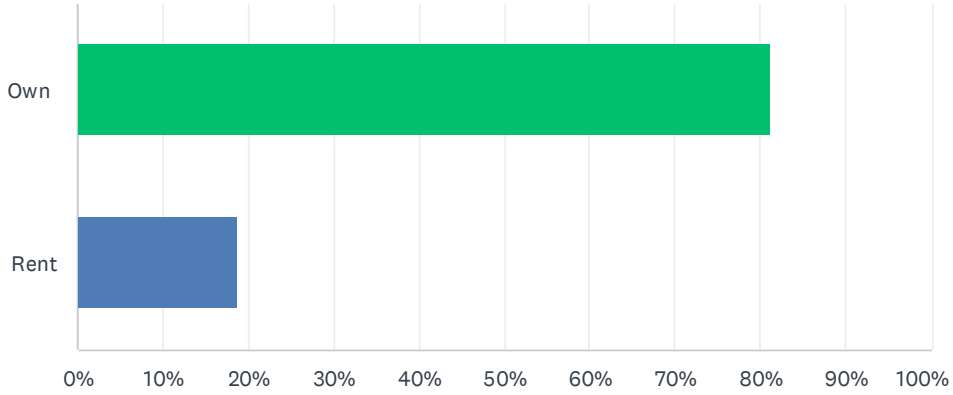
Answered: 52 Skipped: 16



ANSWER CHOICES	RESPONSES	
Less than 1 year	1.92%	1
1 to 5 years	13.46%	7
6 to 9 years	17.31%	9
10 to 19 years	19.23%	10
20 years or more	48.08%	25
TOTAL		52

Q16 Do you own or rent your place of residence?

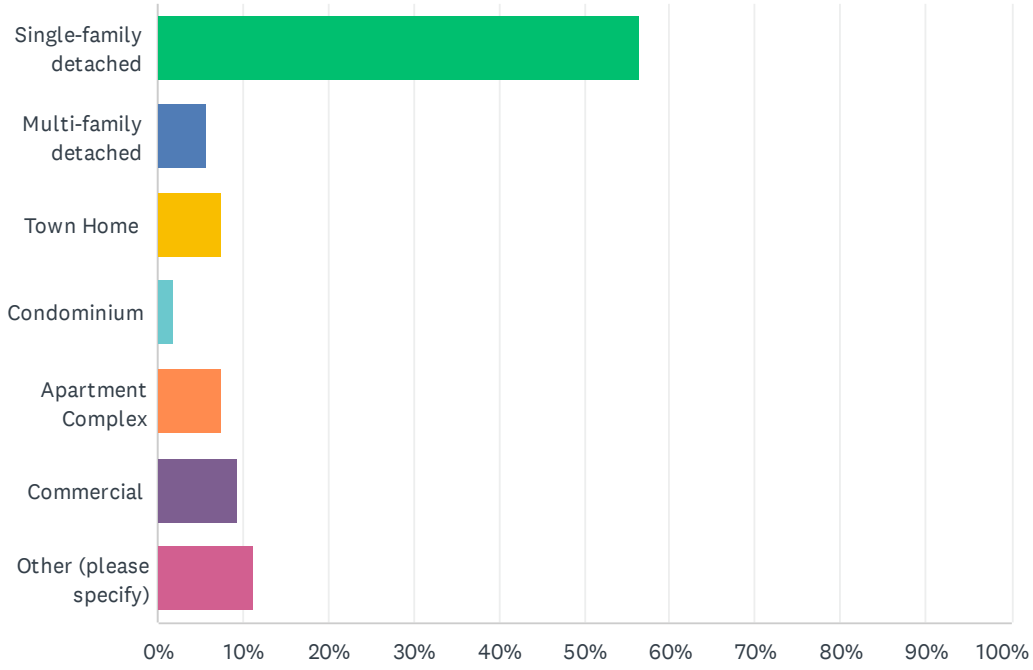
Answered: 53 Skipped: 15



ANSWER CHOICES	RESPONSES	
Own	81.13%	43
Rent	18.87%	10
TOTAL		53

Q17 What type of residence do you live in?

Answered: 53 Skipped: 15



ANSWER CHOICES	RESPONSES	
Single-family detached	56.60%	30
Multi-family detached	5.66%	3
Town Home	7.55%	4
Condominium	1.89%	1
Apartment Complex	7.55%	4
Commercial	9.43%	5
Other (please specify)	11.32%	6
TOTAL		53

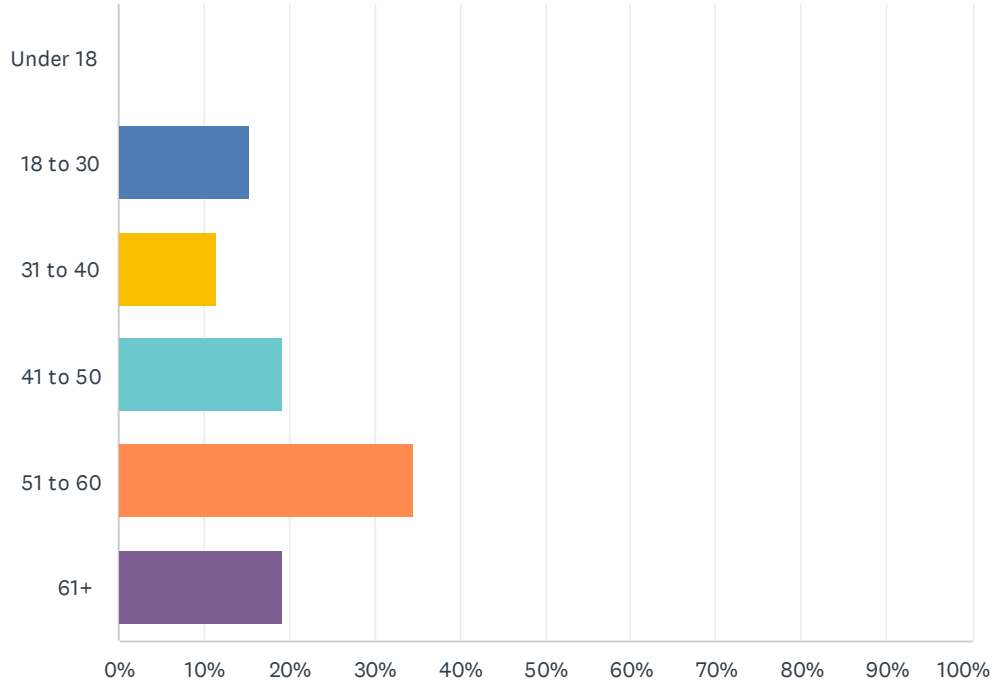
#	OTHER (PLEASE SPECIFY)	DATE
1	Carriage House	5/7/2024 3:57 PM
2	Single Family Semi Detached	5/7/2024 9:05 AM
3	CCRC - skilled nursing, personal care, independent living	1/24/2024 12:18 PM
4	senior living	1/19/2024 1:25 PM
5	School	1/18/2024 7:02 AM
6	PA Licensed Personal Care Home	1/10/2024 1:17 PM

Q18 What street is your property on? (optional, will be kept confidential - only used to identify hazard areas such as flooding)

Answered: 37 Skipped: 31

Q19 Please indicate your age range:

Answered: 52 Skipped: 16



ANSWER CHOICES	RESPONSES	
Under 18	0.00%	0
18 to 30	15.38%	8
31 to 40	11.54%	6
41 to 50	19.23%	10
51 to 60	34.62%	18
61+	19.23%	10
TOTAL		52

Q1 Contact Information

Answered: 15 Skipped: 0

ANSWER CHOICES	RESPONSES	
Name	100.00%	15
Department/Agency	100.00%	15
Primary Responsibility	100.00%	15
Phone Number	100.00%	15
Email Address	100.00%	15

#	NAME	DATE
1	Ken Barton	3/1/2024 12:02 PM
2	Andrew Godfrey	2/16/2024 1:06 PM
3	Matt Shenk	1/31/2024 12:10 PM
4	Jason Erik Skonberg	1/22/2024 8:37 AM
5	Lori Shenk	1/20/2024 2:10 PM
6	Duane Ober	1/19/2024 9:29 AM
7	Abigail Selman	1/19/2024 9:05 AM
8	Philip Colvin	1/18/2024 8:26 PM
9	Dan Mortensen	1/18/2024 1:38 PM
10	Chris McKim	1/18/2024 12:00 PM
11	Michele Tornabe	1/18/2024 11:21 AM
12	Suzette Kreider	1/18/2024 11:17 AM
13	Mona Frey	1/18/2024 10:52 AM
14	Walter Roth	1/18/2024 9:47 AM
15	William Gleason	1/18/2024 9:17 AM

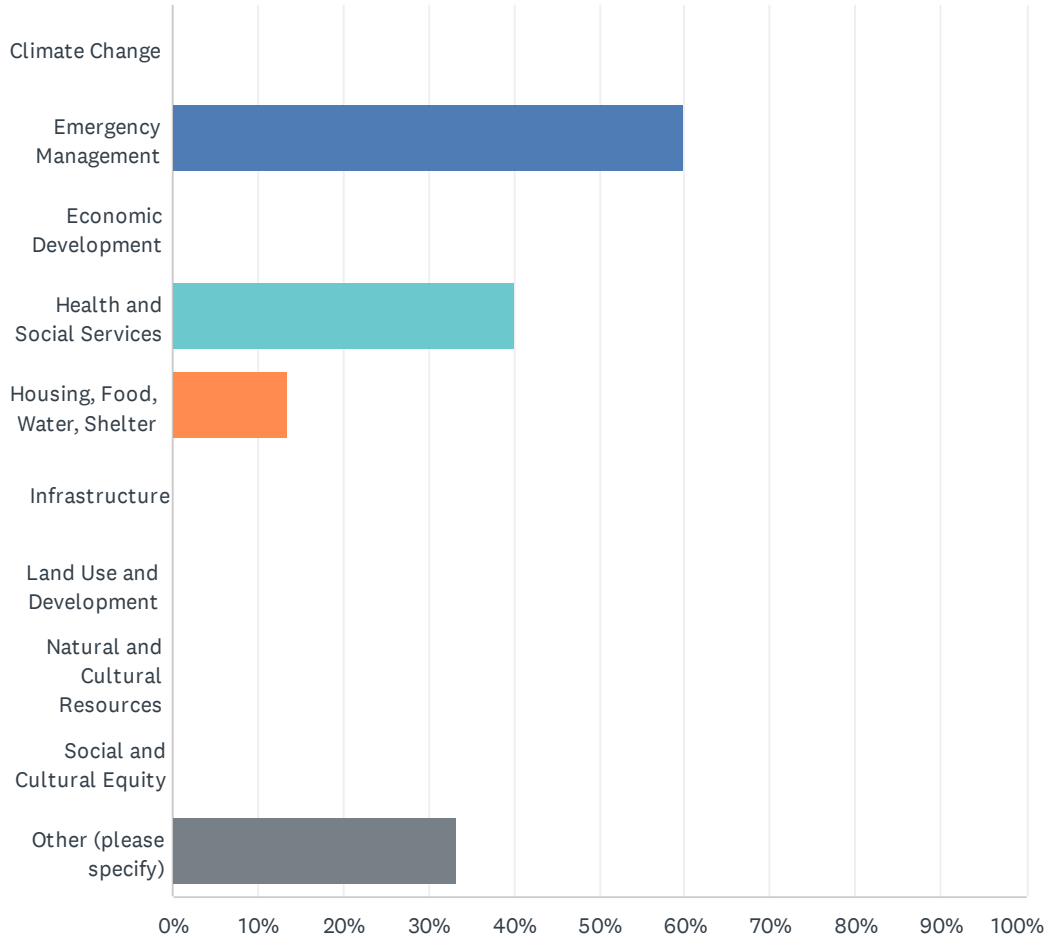
#	DEPARTMENT/AGENCY	DATE
1	West Lampeter Township	3/1/2024 12:02 PM
2	Lampeter-Strasburg School District	2/16/2024 1:06 PM
3	LCWC	1/31/2024 12:10 PM
4	Eden Township EMA	1/22/2024 8:37 AM
5	Rapho Township	1/20/2024 2:10 PM
6	Warwick Township / Lititz Borough	1/19/2024 9:29 AM
7	Nursing Home	1/19/2024 9:05 AM
8	Emergency Management / Mount Joy Borough	1/18/2024 8:26 PM
9	Mennonite Home Communities	1/18/2024 1:38 PM
10	Ephrata Police Department	1/18/2024 12:00 PM

11	Mt Hope Nazarene Retirement Community	1/18/2024 11:21 AM
12	Northwest EMS and MESA of Lancaster County	1/18/2024 11:17 AM
13	Long Term Care	1/18/2024 10:52 AM
14	UPMC Lititz	1/18/2024 9:47 AM
15	Hempfield School District	1/18/2024 9:17 AM
#	**PRIMARY RESPONSIBILITY**	**DATE**
1	Emergency Management Coordinator	3/1/2024 12:02 PM
2	Asst. Superintendent	2/16/2024 1:06 PM
3	Technical Services	1/31/2024 12:10 PM
4	Deputy Emergency Management Coordinator	1/22/2024 8:37 AM
5	Emergency Management Coordinator	1/20/2024 2:10 PM
6	Emergency Management Coordinator	1/19/2024 9:29 AM
7	Executive director	1/19/2024 9:05 AM
8	EMC	1/18/2024 8:26 PM
9	Administration & Emergency Planning	1/18/2024 1:38 PM
10	Police Chief	1/18/2024 12:00 PM
11	NHA	1/18/2024 11:21 AM
12	Compliance Officer	1/18/2024 11:17 AM
13	Executive Director	1/18/2024 10:52 AM
14	Emergency Management / Safety	1/18/2024 9:47 AM
15	Safety and Security	1/18/2024 9:17 AM
#	**PHONE NUMBER**	**DATE**
1	717-471-1651	3/1/2024 12:02 PM
2	7174643311	2/16/2024 1:06 PM
3	717-664-1262	1/31/2024 12:10 PM
4	7177867915	1/22/2024 8:37 AM
5	17173718282	1/20/2024 2:10 PM
6	717-224-0114	1/19/2024 9:29 AM
7	7173722228	1/19/2024 9:05 AM
8	717-804-4473	1/18/2024 8:26 PM
9	7178740018	1/18/2024 1:38 PM
10	17175870280	1/18/2024 12:00 PM
11	7179176255	1/18/2024 11:21 AM
12	7173618220	1/18/2024 11:17 AM
13	7117-355-9522	1/18/2024 10:52 AM
14	17173148360	1/18/2024 9:47 AM
15	17175879159	1/18/2024 9:17 AM
#	**EMAIL ADDRESS**	**DATE**

1	emergencycoordinator@westlampeter.com	3/1/2024 12:02 PM
2	andrew_godfrey@l-spioneers.org	2/16/2024 1:06 PM
3	mshenk@lcwc911.us	1/31/2024 12:10 PM
4	edentwpdemc@comcast.net	1/22/2024 8:37 AM
5	lshenk@dejazzd.com	1/20/2024 2:10 PM
6	dober@warwicktownship.org	1/19/2024 9:29 AM
7	admin@neffsvillerehab.com	1/19/2024 9:05 AM
8	ema@mountjoypa.org	1/18/2024 8:26 PM
9	dmortensen@mennonitehome.org	1/18/2024 1:38 PM
10	cmckim@ephratapd.org	1/18/2024 12:00 PM
11	mtornabe@mthopenazarene.org	1/18/2024 11:21 AM
12	skreider@mesalancasterpa.gov	1/18/2024 11:17 AM
13	mfrey@landis.org	1/18/2024 10:52 AM
14	rothwd@upmc.edu	1/18/2024 9:47 AM
15	william_gleason@hempfieldsd.org	1/18/2024 9:17 AM

Q2 Which of the following sectors and areas of expertise do you represent? Mark all that apply.

Answered: 15 Skipped: 0

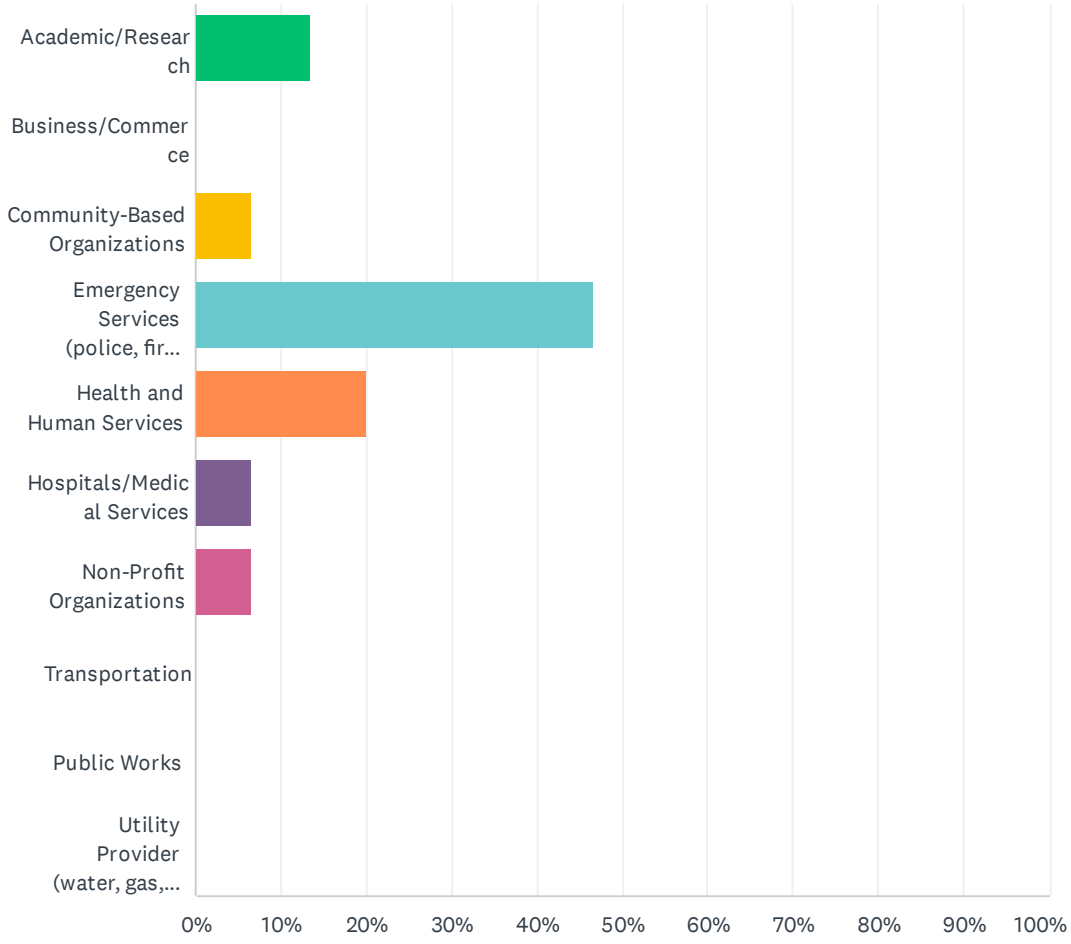


ANSWER CHOICES	RESPONSES	
Climate Change	0.00%	0
Emergency Management	60.00%	9
Economic Development	0.00%	0
Health and Social Services	40.00%	6
Housing, Food, Water, Shelter	13.33%	2
Infrastructure	0.00%	0
Land Use and Development	0.00%	0
Natural and Cultural Resources	0.00%	0
Social and Cultural Equity	0.00%	0
Other (please specify)	33.33%	5
Total Respondents: 15		

#	OTHER (PLEASE SPECIFY)	DATE
1	public education	2/16/2024 1:06 PM
2	Communications	1/31/2024 12:10 PM
3	Fire & Rescue Services	1/18/2024 8:26 PM
4	Law Enforcement	1/18/2024 12:00 PM
5	Safety and Security	1/18/2024 9:17 AM

Q3 What category does your facility operation/service fall under?

Answered: 15 Skipped: 0



ANSWER CHOICES	RESPONSES	
Academic/Research	13.33%	2
Business/Commerce	0.00%	0
Community-Based Organizations	6.67%	1
Emergency Services (police, fire, EMS)	46.67%	7
Health and Human Services	20.00%	3
Hospitals/Medical Services	6.67%	1
Non-Profit Organizations	6.67%	1
Transportation	0.00%	0
Public Works	0.00%	0
Utility Provider (water, gas, electric)	0.00%	0
TOTAL		15

#	OTHER (PLEASE SPECIFY)	DATE
1	Emergency Management	1/22/2024 8:37 AM

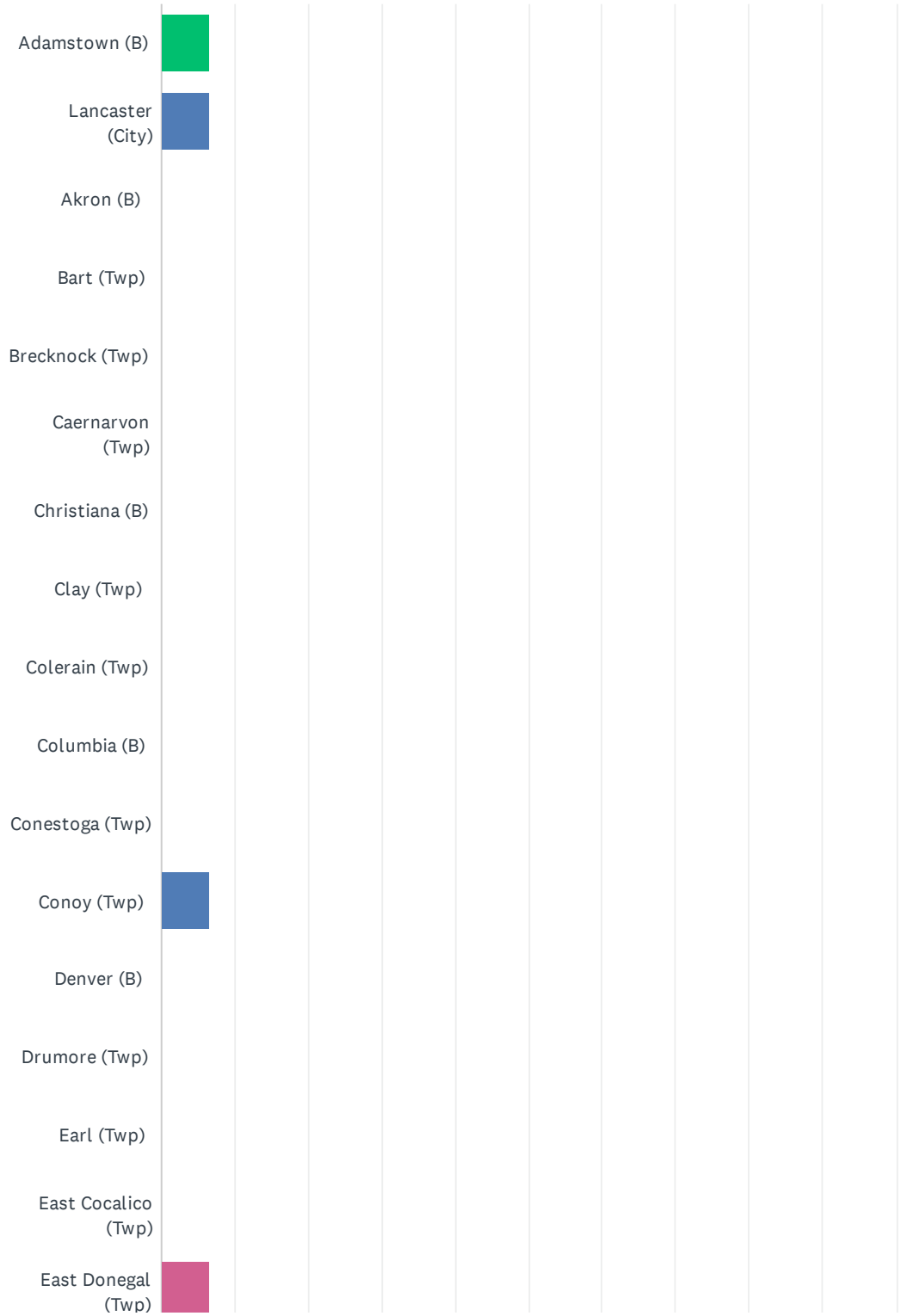
Q4 Based on the above category, please provide additional description and information as to what your organization does or offers (please explain)

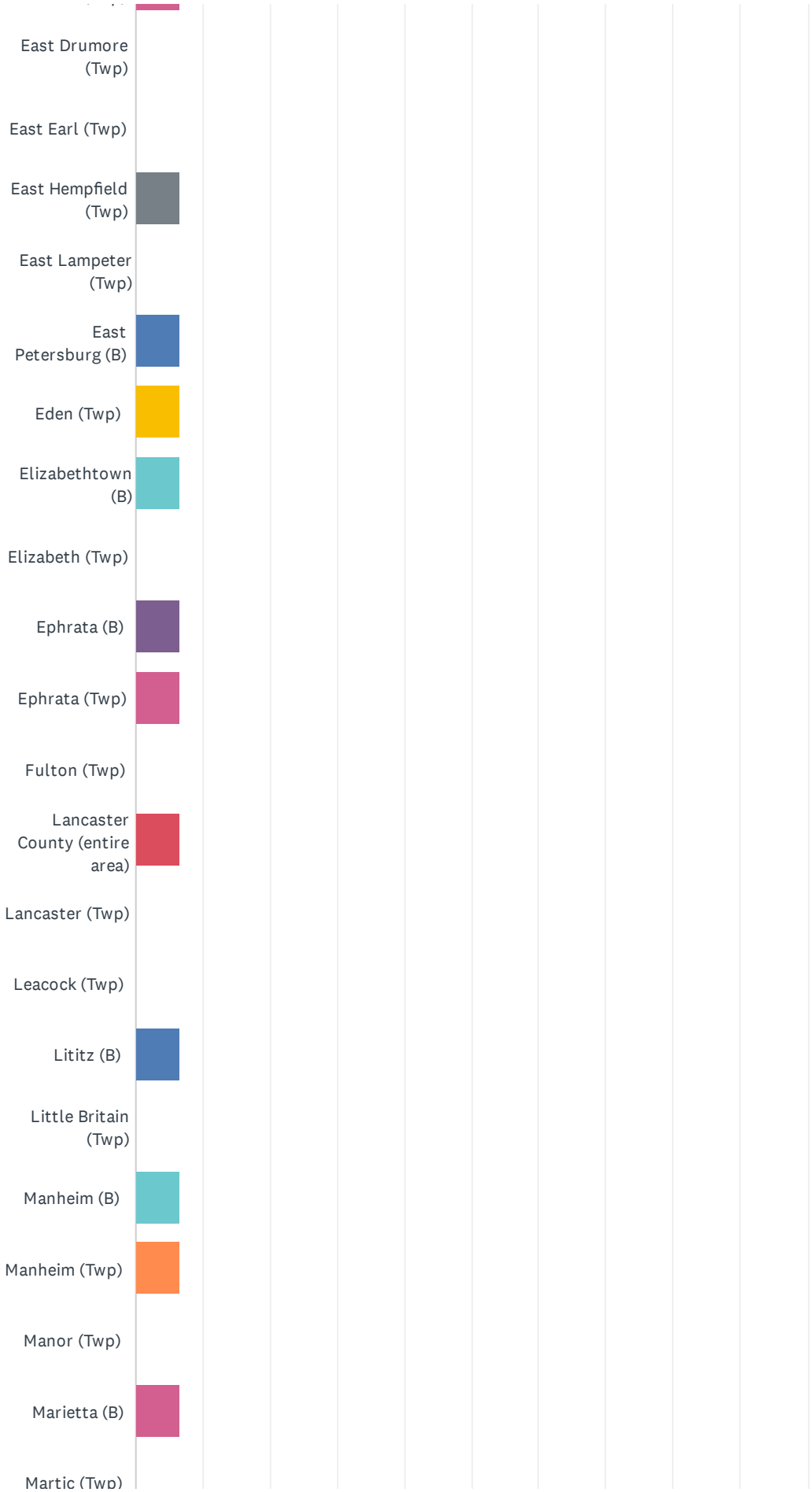
Answered: 14 Skipped: 1

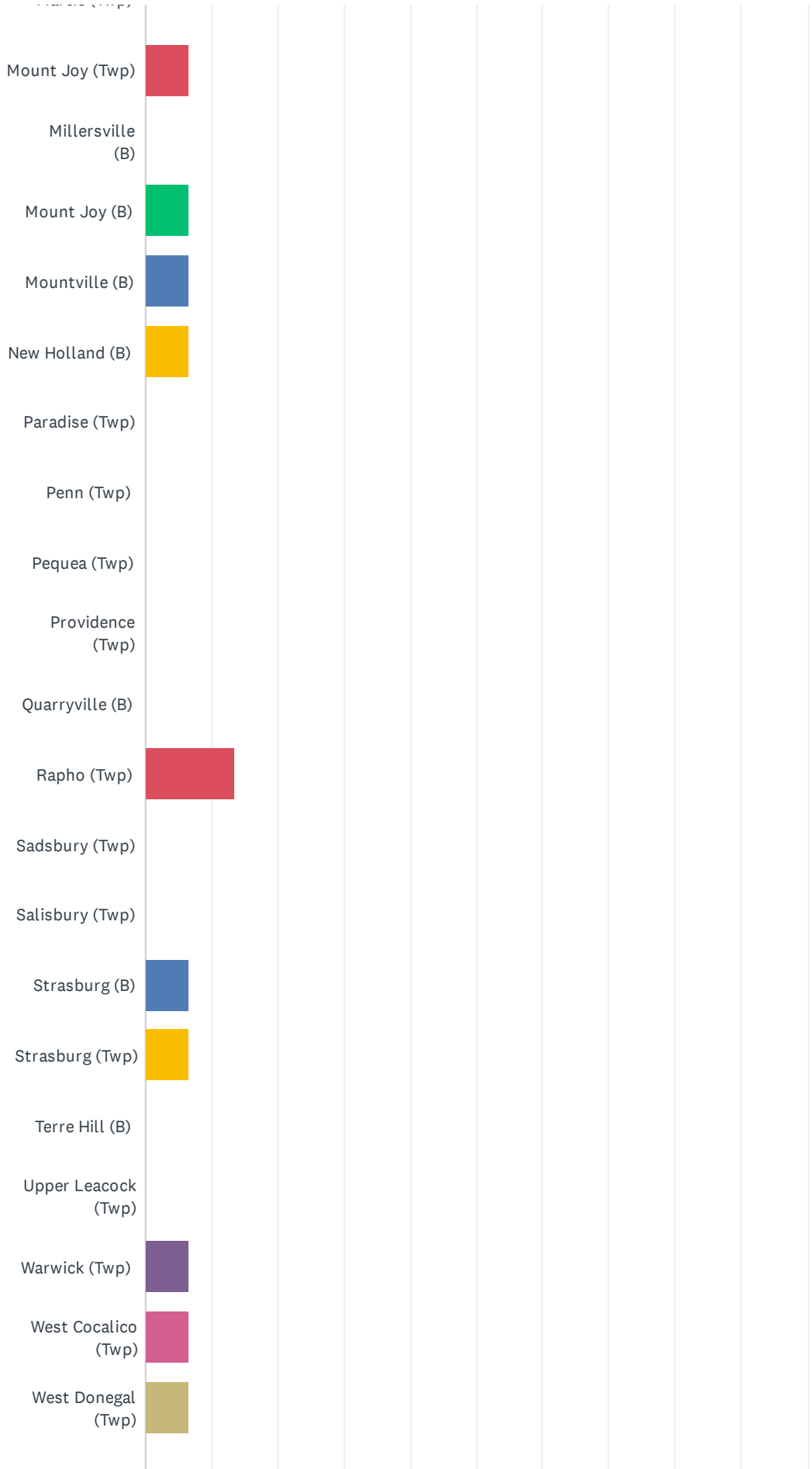
#	RESPONSES	DATE
1	I am a liaison with the fire companies to the Township. I respond to emergencies as needed and can offer to help procure the things that Fire/EMS/LE may need on the scene. I also update our Emergency Operations Plan and try to connect with businesses to make sure we have their updated plans on file.	3/1/2024 12:02 PM
2	Public Education	2/16/2024 1:06 PM
3	Ensure that Eden Township is prepared to respond to, and recover from, natural and man-made emergencies.	1/22/2024 8:37 AM
4	Supports emergency response and public works during times of disaster/emergency and assists with unmet needs and resource allocation.	1/20/2024 2:10 PM
5	Emergency management duties for two municipalities	1/19/2024 9:29 AM
6	Nursing Home Facility	1/19/2024 9:05 AM
7	Local Municipal Government	1/18/2024 8:26 PM
8	Senior independent living, nursing home	1/18/2024 1:38 PM
9	Full service police agency for Ephrata Borough, Ephrata Township, West Cocalico Township, Adamstown Borough 33,000 total residents	1/18/2024 12:00 PM
10	Skilled Nursing	1/18/2024 11:21 AM
11	We provide emergency medical service to our six municipality coverage area. We also provide CPR, First Aid, EMT and AEMT classes to students and the public.	1/18/2024 11:17 AM
12	Licensed Personal Care Home	1/18/2024 10:52 AM
13	We are an acute care hospital	1/18/2024 9:47 AM
14	Public School	1/18/2024 9:17 AM

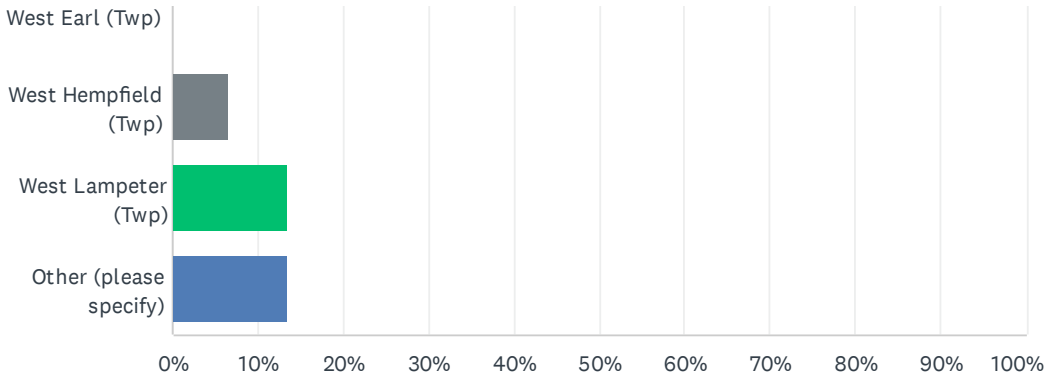
Q5 Please identify the location of your facility(ies) and/ or primary service area. You may choose more than one if your service area covers multiple communities, or “Lancaster County (entire area)” if your service area is county-wide:

Answered: 15 Skipped: 0




East Drumore (Twp)
East Earl (Twp)
East Hempfield (Twp)
East Lampeter (Twp)
East Petersburg (B)
Eden (Twp)
Elizabethtown (B)
Elizabeth (Twp)
Ephrata (B)
Ephrata (Twp)
Fulton (Twp)
Lancaster County (entire area)
Lancaster (Twp)
Leacock (Twp)
Lititz (B)
Little Britain (Twp)
Manheim (B)
Manheim (Twp)
Manor (Twp)
Marietta (B)
Martic (Twp)


Mount Joy (Twp)
Millersville (B)
Mount Joy (B)
Mountville (B)
New Holland (B)
Paradise (Twp)
Penn (Twp)
Pequea (Twp)
Providence (Twp)
Quarryville (B)
Rapho (Twp)
Sadsbury (Twp)
Salisbury (Twp)
Strasburg (B)
Strasburg (Twp)
Terre Hill (B)
Upper Leacock (Twp)
Warwick (Twp)
West Cocalico (Twp)
West Donegal (Twp)


West Earl (Twp)
West Hempfield (Twp)
West Lampeter (Twp)
Other (please specify)
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%

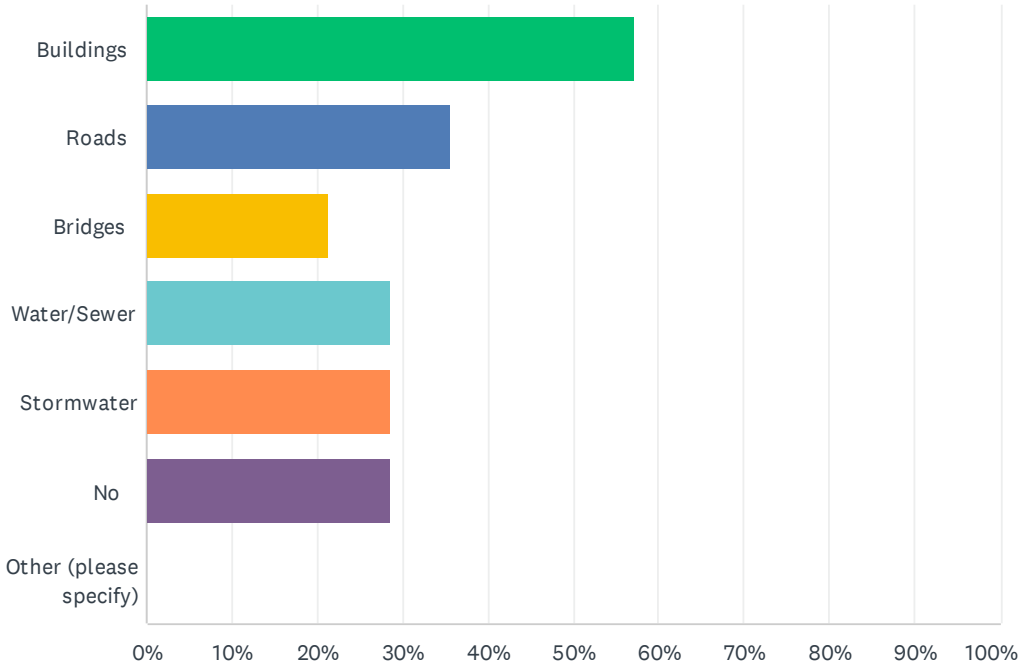
ANSWER CHOICES	RESPONSES	
Adamstown (B)	6.67%	1
Lancaster (City)	6.67%	1
Akron (B)	0.00%	0
Bart (Twp)	0.00%	0
Brecknock (Twp)	0.00%	0
Caernarvon (Twp)	0.00%	0
Christiana (B)	0.00%	0
Clay (Twp)	0.00%	0
Colerain (Twp)	0.00%	0
Columbia (B)	0.00%	0
Conestoga (Twp)	0.00%	0
Conoy (Twp)	6.67%	1
Denver (B)	0.00%	0
Drumore (Twp)	0.00%	0
Earl (Twp)	0.00%	0
East Cocalico (Twp)	0.00%	0
East Donegal (Twp)	6.67%	1
East Drumore (Twp)	0.00%	0
East Earl (Twp)	0.00%	0
East Hempfield (Twp)	6.67%	1
East Lampeter (Twp)	0.00%	0
East Petersburg (B)	6.67%	1
Eden (Twp)	6.67%	1
Elizabethtown (B)	6.67%	1
Elizabeth (Twp)	0.00%	0
Ephrata (B)	6.67%	1
Ephrata (Twp)	6.67%	1
Fulton (Twp)	0.00%	0
Lancaster County (entire area)	6.67%	1
Lancaster (Twp)	0.00%	0
Leacock (Twp)	0.00%	0
Lititz (B)	6.67%	1

Little Britain (Twp)	0.00%	0
Manheim (B)	6.67%	1
Manheim (Twp)	6.67%	1
Manor (Twp)	0.00%	0
Marietta (B)	6.67%	1
Martic (Twp)	0.00%	0
Mount Joy (Twp)	6.67%	1
Millersville (B)	0.00%	0
Mount Joy (B)	6.67%	1
Mountville (B)	6.67%	1
New Holland (B)	6.67%	1
Paradise (Twp)	0.00%	0
Penn (Twp)	0.00%	0
Pequea (Twp)	0.00%	0
Providence (Twp)	0.00%	0
Quarryville (B)	0.00%	0
Rapho (Twp)	13.33%	2
Sadsbury (Twp)	0.00%	0
Salisbury (Twp)	0.00%	0
Strasburg (B)	6.67%	1
Strasburg (Twp)	6.67%	1
Terre Hill (B)	0.00%	0
Upper Leacock (Twp)	0.00%	0
Warwick (Twp)	6.67%	1
West Cocalico (Twp)	6.67%	1
West Donegal (Twp)	6.67%	1
West Earl (Twp)	0.00%	0
West Hempfield (Twp)	6.67%	1
West Lampeter (Twp)	13.33%	2
Other (please specify)	13.33%	2
Total Respondents: 15		

#	OTHER (PLEASE SPECIFY)	DATE
1	Neffsville	1/19/2024 9:05 AM
2	We currently have primary ALS territory in Dauphin County	1/18/2024 11:17 AM

Q6 Does your organization maintain or manage any of the following within your designated service area? If not, answer “No” at the bottom, otherwise check all that apply.

Answered: 14 Skipped: 1

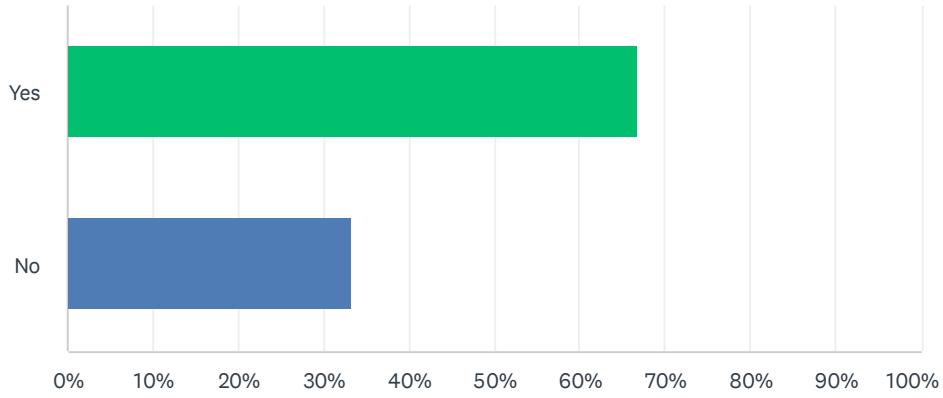


ANSWER CHOICES	RESPONSES	
Buildings	57.14%	8
Roads	35.71%	5
Bridges	21.43%	3
Water/Sewer	28.57%	4
Stormwater	28.57%	4
No	28.57%	4
Other (please specify)	0.00%	0
Total Respondents: 14		

#	OTHER (PLEASE SPECIFY)	DATE
	There are no responses.	

Q7 Does your organization work with or help support socially vulnerable populations that may be at higher risk for hazard impacts? Socially vulnerable populations may be considered "socially vulnerable" because of a variety of factors like socioeconomic status, household composition, minority status, limited proficiency to read or speak English, housing type, and transportation.

Answered: 15 Skipped: 0

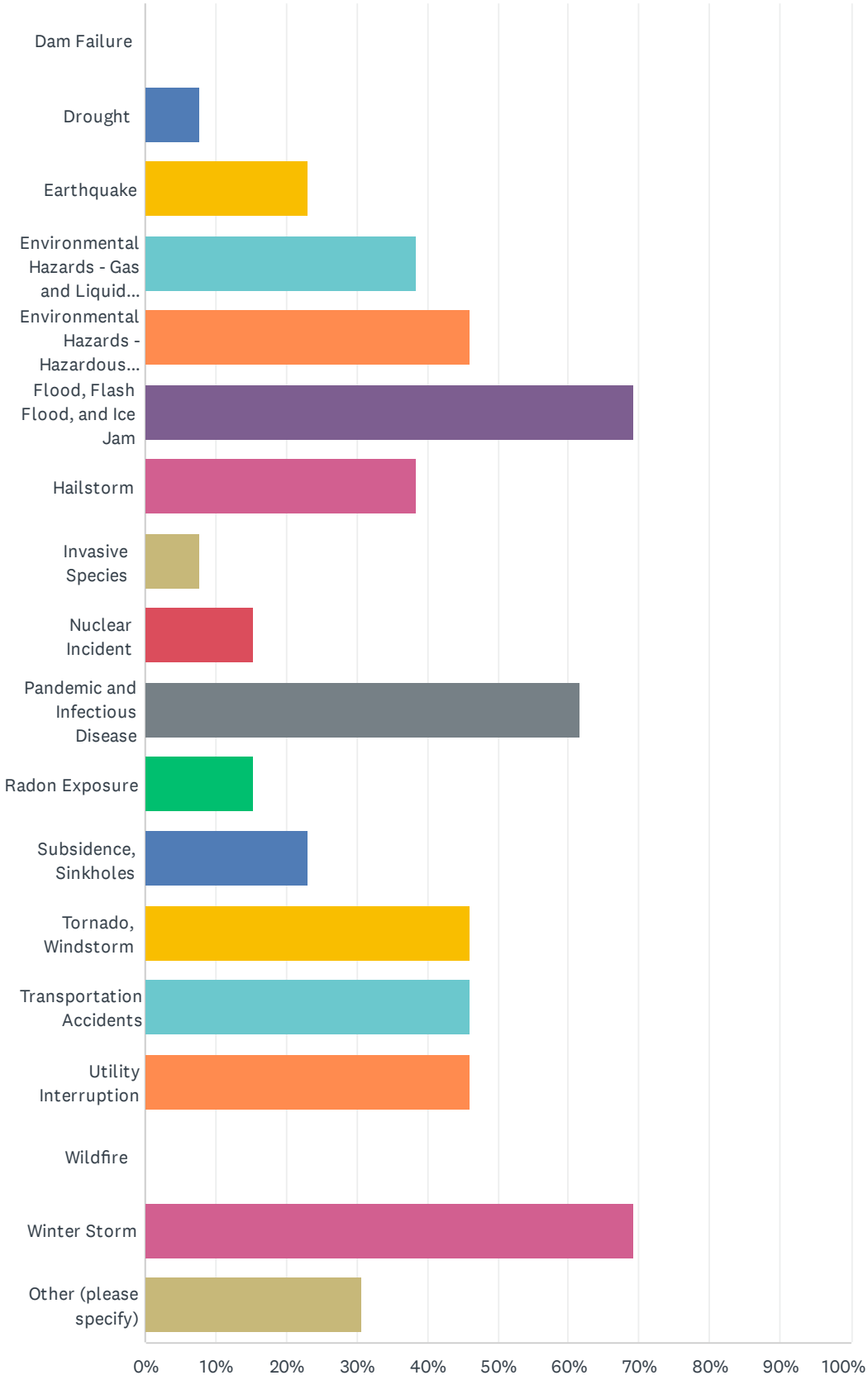


ANSWER CHOICES	RESPONSES	
Yes	66.67%	10
No	33.33%	5
TOTAL		15

#	IF YOU ANSWERED YES, PLEASE DESCRIBE HOW YOUR ORGANIZATION WORKS WITH OR SUPPORTS SOCIALLY VULNERABLE POPULATIONS.	DATE
1	Education and accommodating individual needs through our social worker and team.	2/16/2024 1:06 PM
2	We employ numerous minority staff members, some of whom have limited proficiency to read or speak English	1/18/2024 1:38 PM
3	We arrest criminals who victimize vulnerable populations	1/18/2024 12:00 PM
4	Senior and Disabled Medical Assistance Recipients	1/18/2024 11:21 AM
5	We provide emergency medical care to all populations including the socially vulnerable.	1/18/2024 11:17 AM
6	We service all students, regardless of their socioeconomic status or physical or mental impairments.	1/18/2024 9:17 AM

Q8 For which hazard(s) do you feel that you or your organization have a special interest and/or expertise? Check all that apply.

Answered: 13 Skipped: 2

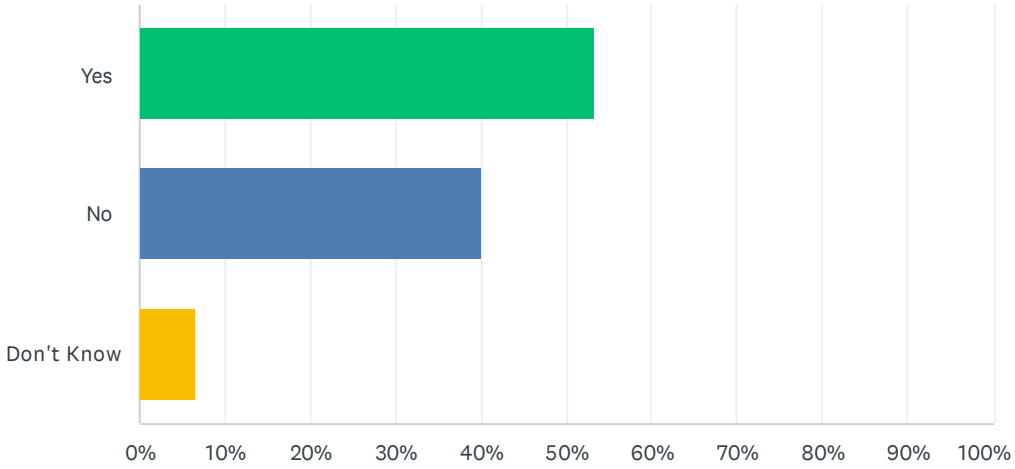

Dam Failure
Drought
Earthquake
Environmental Hazards - Gas and Liquid...
Environmental Hazards - Hazardous...
Flood, Flash Flood, and Ice Jam
Hailstorm
Invasive Species
Nuclear Incident
Pandemic and Infectious Disease
Radon Exposure
Subsidence, Sinkholes
Tornado, Windstorm
Transportation Accidents
Utility Interruption
Wildfire
Winter Storm
Other (please specify)
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%

ANSWER CHOICES	RESPONSES	
Dam Failure	0.00%	0
Drought	7.69%	1
Earthquake	23.08%	3
Environmental Hazards - Gas and Liquid Pipelines	38.46%	5
Environmental Hazards - Hazardous Materials Releases	46.15%	6
Flood, Flash Flood, and Ice Jam	69.23%	9
Hailstorm	38.46%	5
Invasive Species	7.69%	1
Nuclear Incident	15.38%	2
Pandemic and Infectious Disease	61.54%	8
Radon Exposure	15.38%	2
Subsidence, Sinkholes	23.08%	3
Tornado, Windstorm	46.15%	6
Transportation Accidents	46.15%	6
Utility Interruption	46.15%	6
Wildfire	0.00%	0
Winter Storm	69.23%	9
Other (please specify)	30.77%	4
Total Respondents: 13		

#	OTHER (PLEASE SPECIFY)	DATE
1	NA	2/16/2024 1:12 PM
2	Cyber incidents	1/22/2024 8:41 AM
3	MCI	1/18/2024 12:05 PM
4	Anything that would impact our ability to care for the community	1/18/2024 9:51 AM

Q9 Looking back at previous hazard events, have buildings/facilities/structures you have worked in and/ or are responsible for been impacted by a hazard (ex. damage/closures/etc.)?

Answered: 15 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	53.33%	8
No	40.00%	6
Don't Know	6.67%	1
TOTAL		15

Q10 If you answered “Yes” to the above question, please describe the event that caused or is causing (if recurring) damage and loss of service/ property. If quantifiable data is available, please provide that as well (number of damaged structures, monetary loss, etc.) (please explain)

Answered: 8 Skipped: 7

#	RESPONSES	DATE
1	State mandated school closure due to pandemic	2/16/2024 1:12 PM
2	Explosion/total loss of Public Works buildings, including all assets. Major damage to municipal office building and contents. Monetary less projected to be greater than 4 mil. Additionally, flooding has damaged infrastructure (roadways and bridges). Monetary loss varies.	1/20/2024 2:20 PM
3	Most common is closed roadways due to flooding.	1/19/2024 9:33 AM
4	Winter Storms and Flooding Events. Flooding from Tropical Storm Lee in 2011 and Flash Flooding in 2018. Winter Storms caused minor building damage at various times.	1/18/2024 8:30 PM
5	COVID-19 Pandemic, winter storms, flood, sinkholes, utility interruption	1/18/2024 1:45 PM
6	Loss of electrical power due to unexpected surge. We have emergency power in place.	1/18/2024 12:05 PM
7	COVID 19 Severe Weather	1/18/2024 11:23 AM
8	2019 frequent flooding of 1st floor requiring restoration services.	1/18/2024 10:56 AM

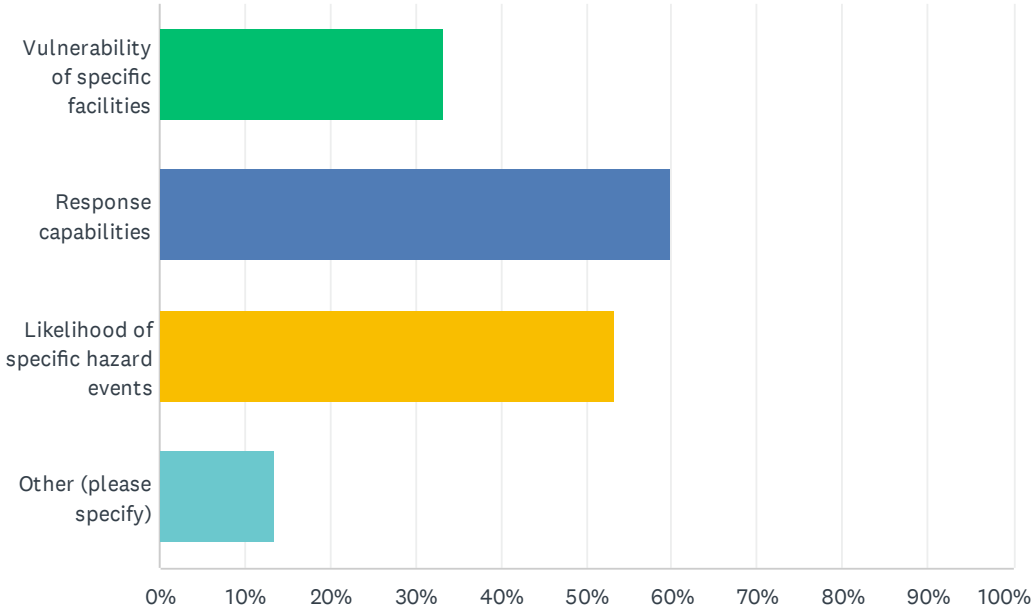
Q11 Looking at where your facilities or services are located in Lancaster County, what areas do you believe to be the most vulnerable to hazards? What are these hazards? (please explain).

Answered: 13 Skipped: 2

#	RESPONSES	DATE
1	There are a lot of trucks going on our roads, so we always have the possibility for transportation accidents. We have quite a few farms, so there is that inherent risk-farm accidents, chemical accidents. We have a large elderly population so that presents its own challenges.	3/1/2024 12:11 PM
2	NA	2/16/2024 1:12 PM
3	Flood	1/31/2024 12:11 PM
4	Low-lying areas near waterways	1/20/2024 2:20 PM
5	Roadways near Hammer Creek, Cocalico Creek, and Lititz Run - flooding concerns	1/19/2024 9:33 AM
6	Could be any structure/facility in the Borough. Weather related hazards.	1/18/2024 8:30 PM
7	Environmental hazards, floods, pandemic, winter storms, utility interruptions	1/18/2024 1:45 PM
8	Low areas near Cocalico Creek. Some are residential and prone to flooding	1/18/2024 12:05 PM
9	Pandemic and electrical outages	1/18/2024 11:23 AM
10	flooding and severe snow cause problems accessing patients/scenes for 911 calls.	1/18/2024 11:20 AM
11	power outages, water quality, flooding, gas leaks	1/18/2024 10:56 AM
12	weather and mass casuality	1/18/2024 9:51 AM
13	Transportation accidents. We have 7,700 students transported to our schools via buses or personal vehicles	1/18/2024 9:26 AM

Q12 What are your agency's primary concerns regarding hazards?

Answered: 15 Skipped: 0



ANSWER CHOICES	RESPONSES	
Vulnerability of specific facilities	33.33%	5
Response capabilities	60.00%	9
Likelihood of specific hazard events	53.33%	8
Other (please specify)	13.33%	2
Total Respondents: 15		

#	OTHER (PLEASE SPECIFY)	DATE
1	Keeping operations running evenly	1/18/2024 11:23 AM
2	Again anything impacting our ability to care for the community	1/18/2024 9:51 AM

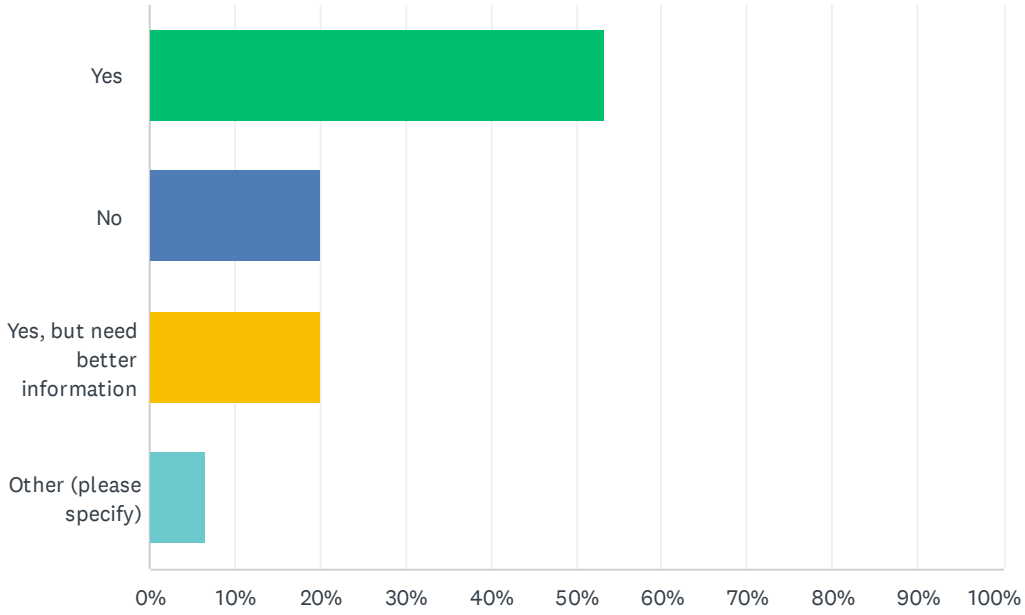
Q13 What challenges or barriers to reducing vulnerability in Lancaster County do you see?

Answered: 11 Skipped: 4

#	RESPONSES	DATE
1	Our road system is stuck in the 1950's. And unfortunately, there is not much room for anything to be done about it. Along with that, the loss of farmland to housing. All we hear is we need more housing...we don't have the road system for the traffic we have now, but we keep encouraging growth.	3/1/2024 12:11 PM
2	NA	2/16/2024 1:12 PM
3	Finances: We are a small rural town that would benefit from grant opportunities to help mitigate hazards	1/22/2024 8:41 AM
4	None	1/20/2024 2:20 PM
5	Funding, difficulty in finding ways to correct issue (some flooding issues will exist no matter what we try to do to prevent it)	1/19/2024 9:33 AM
6	Funding for mitigation projects and the lack of all projects identified.	1/18/2024 8:30 PM
7	Poor revenue and expense management in government.	1/18/2024 12:05 PM
8	Electric and Power in rural areas	1/18/2024 11:23 AM
9	Flooding, snow storms and other environmental issues	1/18/2024 11:20 AM
10	Location creating slow response times	1/18/2024 10:56 AM
11	Communication to include all those who have potential to be impacted	1/18/2024 9:51 AM

Q14 Are you aware of the number and location of vulnerable populations in your community/operating area?

Answered: 15 Skipped: 0

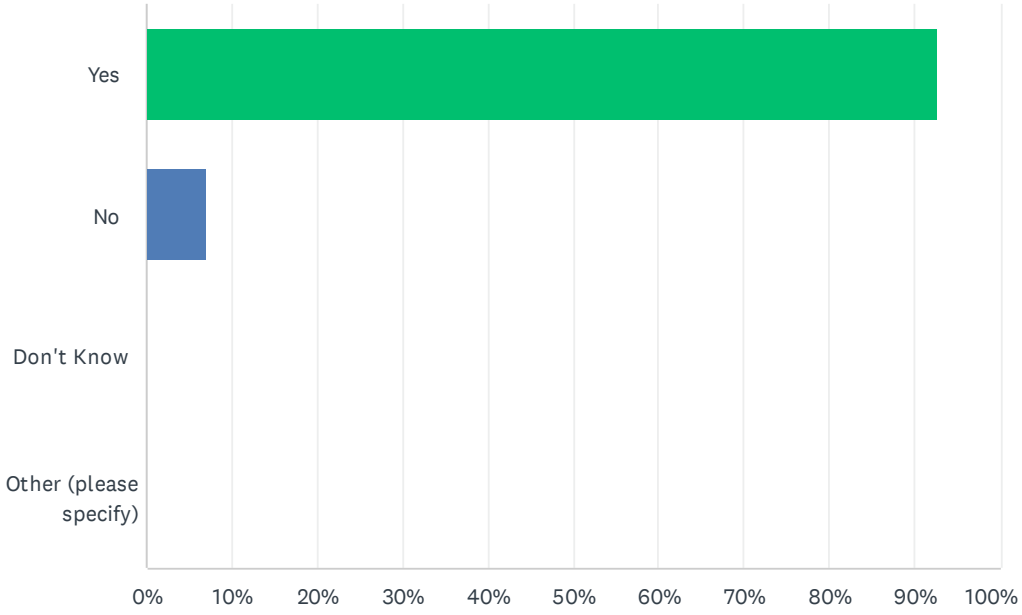


ANSWER CHOICES	RESPONSES	
Yes	53.33%	8
No	20.00%	3
Yes, but need better information	20.00%	3
Other (please specify)	6.67%	1
TOTAL		15

#	OTHER (PLEASE SPECIFY)	DATE
1	Somewhat, but I'm not sure if there are other areas not known	3/1/2024 12:11 PM

Q15 Does your agency own or lease facilities?

Answered: 14 Skipped: 1



ANSWER CHOICES	RESPONSES	
Yes	92.86%	13
No	7.14%	1
Don't Know	0.00%	0
Other (please specify)	0.00%	0
TOTAL		14

#	OTHER (PLEASE SPECIFY)	DATE
	There are no responses.	

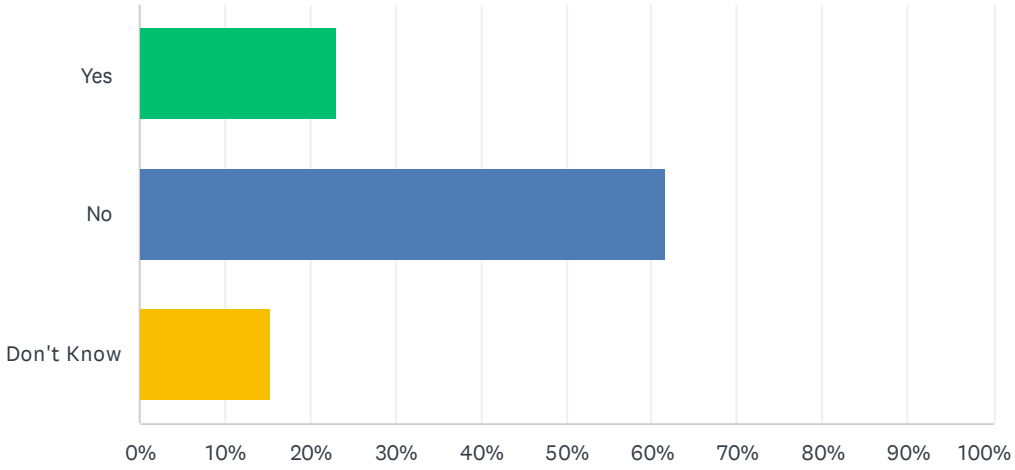
Q16 Of those facilities that your agency owns or leases, are any viewed as critical facilities or community lifelines?

Answered: 12 Skipped: 3

#	RESPONSES	DATE
1	The township building is our primary EOC, so yes. The fire companies own their buildings.	3/1/2024 12:13 PM
2	No	2/16/2024 1:13 PM
3	Yes	1/31/2024 12:12 PM
4	No. Except for the municipal property where public works resources and township business is conducted from.	1/20/2024 2:22 PM
5	Yes, I work in a fire station	1/19/2024 9:33 AM
6	Yes	1/18/2024 8:33 PM
7	Not sure what definition you are using to define "critical facilities or community lifelines" but we operate a nursing home, and have 535 apartments/villas.	1/18/2024 1:47 PM
8	Yes - police station	1/18/2024 12:06 PM
9	critical	1/18/2024 11:27 AM
10	yes	1/18/2024 11:21 AM
11	Yes	1/18/2024 10:58 AM
12	Yes	1/18/2024 9:27 AM

Q17 Are your facilities susceptible to impacts from hazards? For example, your fire department is located in a floodprone area.

Answered: 13 Skipped: 2



ANSWER CHOICES	RESPONSES	
Yes	23.08%	3
No	61.54%	8
Don't Know	15.38%	2
TOTAL		13

#	IF YES, PLEASE SPECIFY THE FACILITIES AND DAMAGES SUSTAINED.	DATE
1	Sewage Treatment Plant is in a flood plain.	1/18/2024 8:33 PM
2	Our nursing home is located adjacent to the Little Conestoga Creek, which can flood. Fortunately, our buildings rarely have water penetration.	1/18/2024 1:47 PM
3	If the bridges overflow ambulance could not get in if the state and county roads are not plowed properly nurse cannot make it in	1/18/2024 11:27 AM

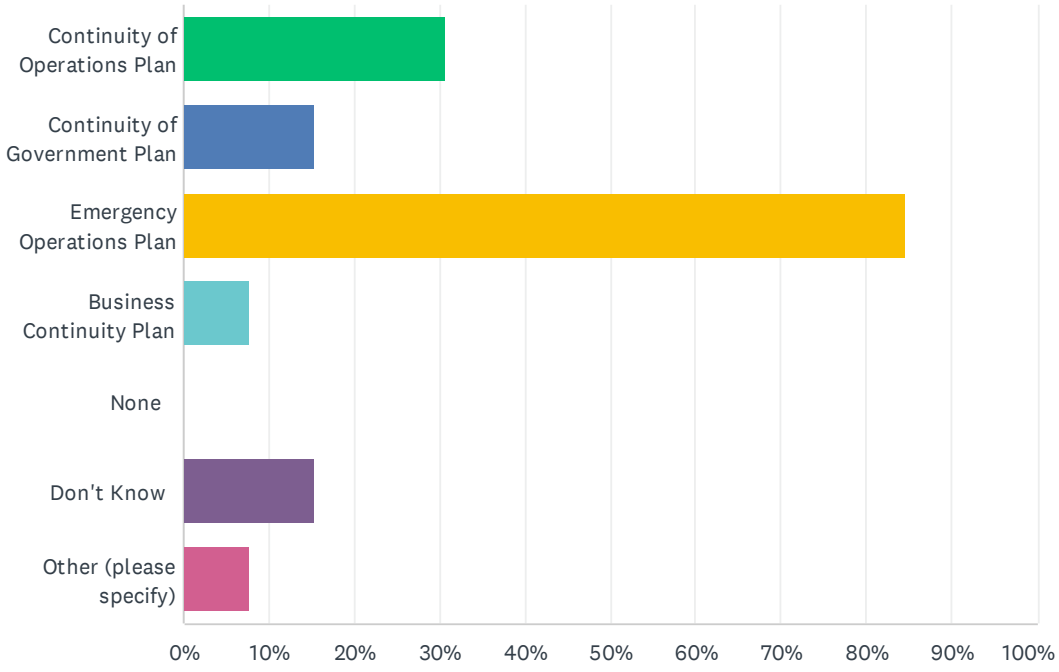
Q18 What support does your organization need from Lancaster County to help reduce vulnerabilities to your facilities?

Answered: 11 Skipped: 4

#	RESPONSES	DATE
1	I'm not sure what we could use at this time	3/1/2024 12:13 PM
2	NA	2/16/2024 1:13 PM
3	None	1/31/2024 12:12 PM
4	Unknown	1/20/2024 2:22 PM
5	None	1/19/2024 9:33 AM
6	Advising the municipalities when HM funds are available to be applied for when the disaster takes place in another part of the state so we know when we can apply.	1/18/2024 8:33 PM
7	Training opportunities	1/18/2024 1:47 PM
8	Making sure severe weather does not impact	1/18/2024 11:27 AM
9	?	1/18/2024 11:21 AM
10	Emergency phone numbers and emergency resources	1/18/2024 10:58 AM
11	Not sure	1/18/2024 9:27 AM

Q19 Is your organization covered by any of the following plans? Check all that apply

Answered: 13 Skipped: 2



ANSWER CHOICES	RESPONSES	
Continuity of Operations Plan	30.77%	4
Continuity of Government Plan	15.38%	2
Emergency Operations Plan	84.62%	11
Business Continuity Plan	7.69%	1
None	0.00%	0
Don't Know	15.38%	2
Other (please specify)	7.69%	1
Total Respondents: 13		

#	OTHER (PLEASE SPECIFY)	DATE
1	I am not sure if the Township has a Continuity plan, but I would assume we do	3/1/2024 12:21 PM

Q20 What capabilities does your agency have to help address hazards?

Answered: 10 Skipped: 5

#	RESPONSES	DATE
1	There are two fire companies within the Township. We also have a FT road crew with equipment. In addition, we have verbal agreements with private companies written into our EOP to address needs in emergencies.	3/1/2024 12:21 PM
2	Protect, support, and evacuate students and staff as appropriate.	2/16/2024 1:15 PM
3	None	1/31/2024 12:16 PM
4	Staff and equipment	1/20/2024 2:24 PM
5	Working on a COOP; utilizing EOP, local first responders	1/19/2024 9:36 AM
6	Fire Department, Public Works Department, Water Sewer Authority and Codes Enforcement can respond with personnel and equipment to address hazards.	1/18/2024 8:36 PM
7	I don't understand what you're asking	1/18/2024 12:07 PM
8	Keystone coalition HAP	1/18/2024 11:45 AM
9	Off site evacuation shelter, 3 day supply of food and water	1/18/2024 11:00 AM
10	Building Emergency Teams in each building.	1/18/2024 9:28 AM

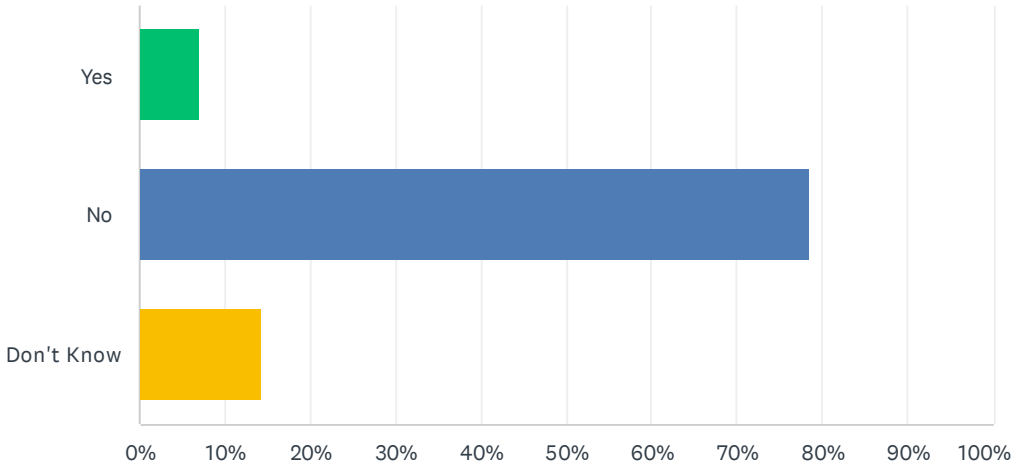
Q21 What plans or studies has your agency developed that relate to hazards, the climate, new or existing facilities, vulnerable populations, or other areas related to hazard mitigation?

Answered: 9 Skipped: 6

#	RESPONSES	DATE
1	We identify areas that are prone to flooding. Some areas are not "fixable" by their nature. We had an intersection prone to flooding. This past summer, between Penn DOT (with a private contractor) and the township, the intersection was redone and the flood threat mitigated. Our Planning staff addresses storm water issues as they arise and with all planned new construction.	3/1/2024 12:21 PM
2	NA	2/16/2024 1:15 PM
3	None	1/31/2024 12:16 PM
4	None	1/20/2024 2:24 PM
5	EOP	1/19/2024 9:36 AM
6	We only have the EOP at this time.	1/18/2024 8:36 PM
7	eop Reviewed by HAP LEMA and Lori Shenk	1/18/2024 11:45 AM
8	Emergency Management Plan with protocols, policies and procedures	1/18/2024 11:00 AM
9	All Hazards Plan	1/18/2024 9:28 AM

Q22 Is your agency currently involved in conducting any studies or developing any programs which would further support Lancaster County's hazard mitigation program? Studies can include hazard-specific information, data gathering which supports risk assessments, including economic data, or statistical data of other types.

Answered: 14 Skipped: 1



ANSWER CHOICES	RESPONSES	
Yes	7.14%	1
No	78.57%	11
Don't Know	14.29%	2
TOTAL		14

#	IF YES, PLEASE BRIEFLY DESCRIBE THE TYPE OF STUDY UNDERWAY, AND LIST THE ANTICIPATED YEAR OF COMPLETION.	DATE
	There are no responses.	

Q23 Does your agency currently have any mitigation projects or activities underway? If so, please describe.

Answered: 8 Skipped: 7

#	RESPONSES	DATE
1	Previous completed.project indicated above to alleviate flooding of roadways. I am not sure of any other	3/1/2024 12:21 PM
2	No	2/16/2024 1:15 PM
3	No	1/31/2024 12:16 PM
4	Not yet	1/22/2024 8:46 AM
5	N/A	1/20/2024 2:24 PM
6	No	1/19/2024 9:36 AM
7	None	1/18/2024 8:36 PM
8	No	1/18/2024 9:28 AM

Q24 Please provide a list of projects or programs that your facility or organization would like to complete in order to reduce your vulnerability to damages and losses, including loss of operation/service, from hazard events.

Answered: 7 Skipped: 8

#	RESPONSES	DATE
1	Continue review and update of our emergency operations plan	2/16/2024 1:16 PM
2	Reprofile township roads to mitigate flooding; Trim trees along a heavily wooded road to mitigate utility disruptions; purchase a speed sign to study speed and help reduce traffic accidents on township roads	1/22/2024 8:48 AM
3	N/A	1/20/2024 2:24 PM
4	Unsure right now	1/19/2024 9:37 AM
5	We are currently reviewing and collecting this data.	1/18/2024 8:37 PM
6	Working with HAP and Rise to redo my EOP	1/18/2024 11:50 AM
7	Don't know of any	1/18/2024 9:29 AM

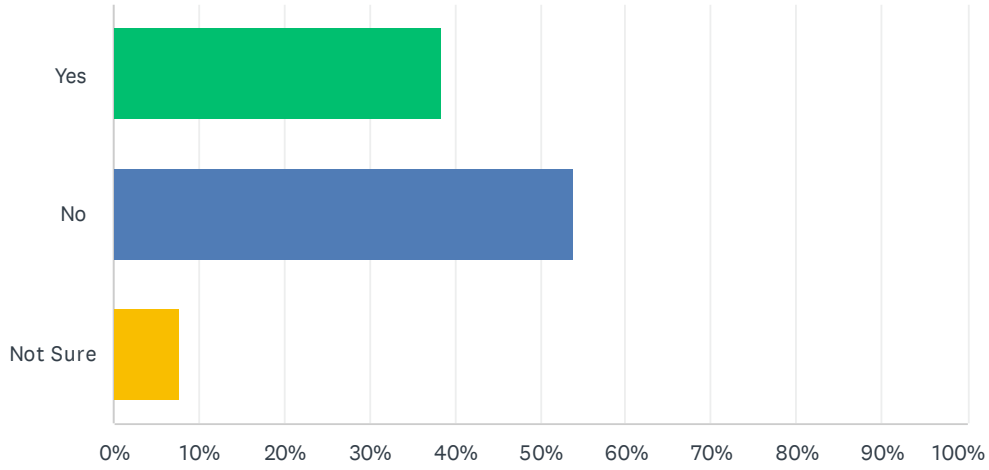
Q25 Please list any projects or programs that you have recently implemented that will reduce your facility's/organization's vulnerability, damage, and losses, including loss of operation/service, from hazard events.

Answered: 7 Skipped: 8

#	RESPONSES	DATE
1	Continue to review and update of our emergency operations plan	2/16/2024 1:16 PM
2	Off-site records storage	1/20/2024 2:24 PM
3	Installing a fire and gas detection system in public works and municipal authority garages / offices.	1/19/2024 9:37 AM
4	None	1/18/2024 8:37 PM
5	a water softening program a water mitigation program	1/18/2024 11:50 AM
6	Working with HAPevolve organization to develop a stronger emergency plan.	1/18/2024 11:01 AM
7	None	1/18/2024 9:29 AM

Q26 Does your agency provide assistance to any socially vulnerable or underserved populations in Lancaster County?

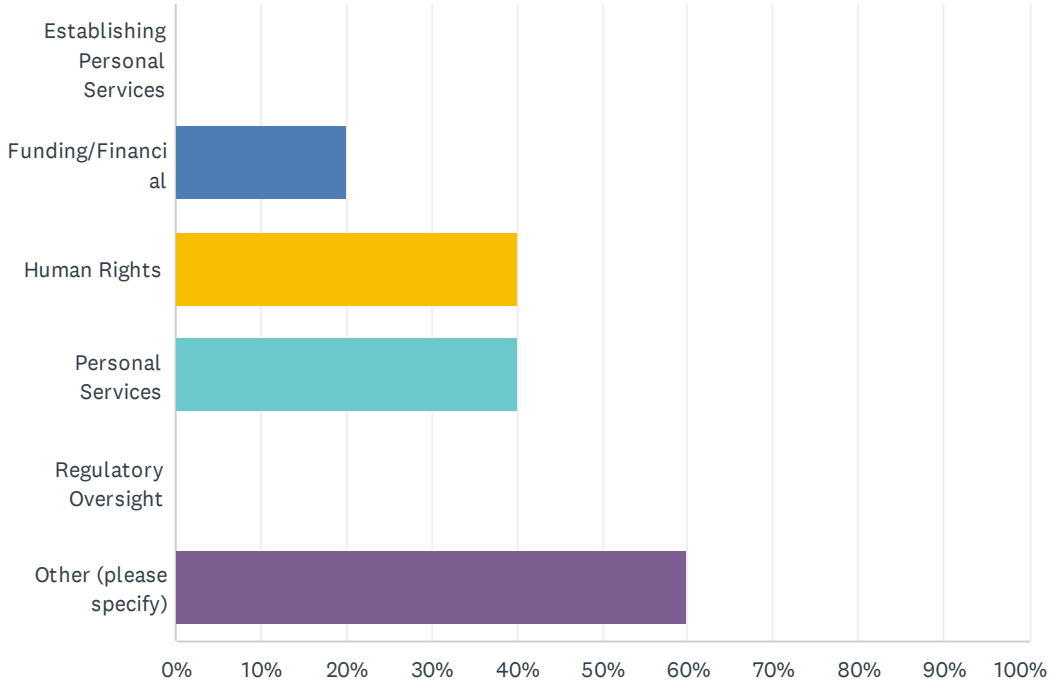
Answered: 13 Skipped: 2



ANSWER CHOICES	RESPONSES	
Yes	38.46%	5
No	53.85%	7
Not Sure	7.69%	1
TOTAL		13

Q27 If yes, what types of services do you provide?

Answered: 5 Skipped: 10



ANSWER CHOICES	RESPONSES	
Establishing Personal Services	0.00%	0
Funding/Financial	20.00%	1
Human Rights	40.00%	2
Personal Services	40.00%	2
Regulatory Oversight	0.00%	0
Other (please specify)	60.00%	3
Total Respondents: 5		

#	OTHER (PLEASE SPECIFY)	DATE
1	Education	2/16/2024 1:18 PM
2	Health Care	1/18/2024 12:01 PM
3	emergency medical service	1/18/2024 11:22 AM

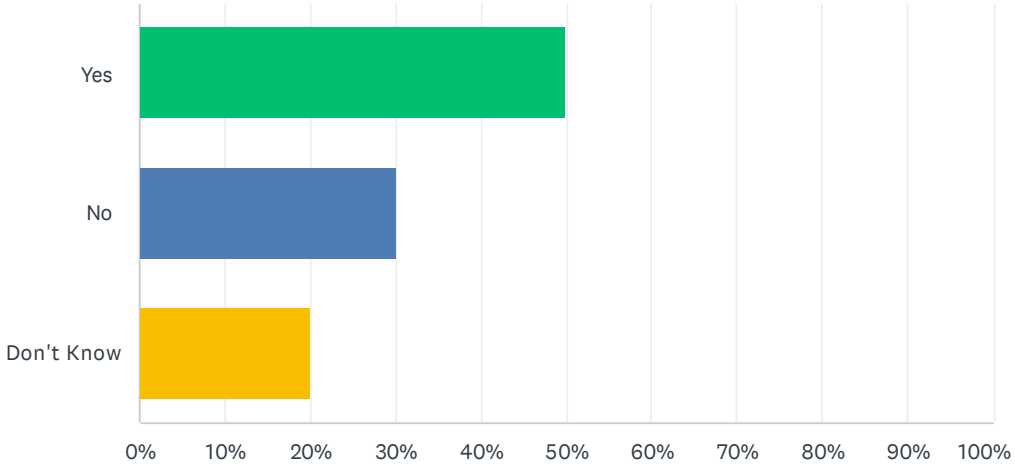
Q28 Please provide a list of the populations or communities served by your agency.

Answered: 6 Skipped: 9

#	RESPONSES	DATE
1	All students	2/16/2024 1:18 PM
2	N/A	1/20/2024 2:25 PM
3	Residents, business properties, workers, daily workforce and flow-thru traffic	1/19/2024 9:40 AM
4	Low Income Seniors Low Income Disabled Intellectually challenged Psychiatric	1/18/2024 12:01 PM
5	Welsh Mountain Home Personal Care Home	1/18/2024 11:03 AM
6	We are a public school district and serve all populations	1/18/2024 9:30 AM

Q29 Do you provide these services during times of disaster?

Answered: 10 Skipped: 5



ANSWER CHOICES	RESPONSES	
Yes	50.00%	5
No	30.00%	3
Don't Know	20.00%	2
TOTAL		10

Q30 What barriers and community characteristics exist within Lancaster County that may create additional vulnerabilities to hazards? This may include but is not limited to access to transportation, broadband access, economic disadvantages, physical health (chronic diseases), limited physical mobility, age (older adults and children), and rural communities.

Answered: 8 Skipped: 7

#	RESPONSES	DATE
1	We have an aging population and I'm not sure how much of that is addressed.	3/1/2024 12:29 PM
2	NA	2/16/2024 1:18 PM
3	None	1/20/2024 2:25 PM
4	Unknown needs of residents (special health needs, communication barriers, etc.)	1/19/2024 9:40 AM
5	Clinicians are sometimes not plentiful	1/18/2024 12:01 PM
6	any of the above	1/18/2024 11:22 AM
7	Rural Location with no access to public transportation, Caring for residents with physical and intellectual disabilities.	1/18/2024 11:03 AM
8	All above listed items	1/18/2024 9:30 AM

Q31 Do you have any questions or comments for Lancaster County?

Answered: 8 Skipped: 7

#	RESPONSES	DATE
1	I feel our loss of farmland is hurting our County. The very thing we are proud of- our farmland, beautiful land, vistas- are the very thing we are losing because of houses. There is always this- "we need more housing". This only encourages developers to build more. We don't have the infrastructure to support this. We need to put MORE money into farmland preservation. I applaud the commissioners for keeping our taxes down. I would rather see a tax for farmland preservation than an eventual tax to pay for roads, storm water mitigation,etc due to the ever expanding populace.	3/1/2024 12:34 PM
2	NA	2/16/2024 1:18 PM
3	No	1/31/2024 12:17 PM
4	No	1/20/2024 2:25 PM
5	No	1/19/2024 9:40 AM
6	Thank you for all your support over the years	1/18/2024 12:01 PM
7	No	1/18/2024 11:22 AM
8	No	1/18/2024 11:03 AM

Q1 Contact Information

Answered: 5 Skipped: 0

ANSWER CHOICES	RESPONSES	
Name	100.00%	5
Department/Agency	100.00%	5
Address	0.00%	0
Address 2	0.00%	0
City/Town	100.00%	5
State/Province	0.00%	0
ZIP/Postal Code	0.00%	0
Country	0.00%	0
Email Address	100.00%	5
Phone Number	100.00%	5

#	NAME	DATE
1	Daniel McKinney	5/10/2024 4:14 PM
2	Chris Christensen	1/25/2024 9:52 AM
3	Chris Fisher	1/25/2024 9:02 AM
4	Gary Verna Jr.	1/19/2024 8:10 AM
5	Shen Kreiser	1/18/2024 9:41 AM

#	DEPARTMENT/AGENCY	DATE
1	Harford County DES	5/10/2024 4:14 PM
2	Chester County DES	1/25/2024 9:52 AM
3	Dauphin County DPS	1/25/2024 9:02 AM
4	Lebanon County DES	1/19/2024 8:10 AM
5	York County Office of Emergency Management	1/18/2024 9:41 AM

#	ADDRESS	DATE
	There are no responses.	

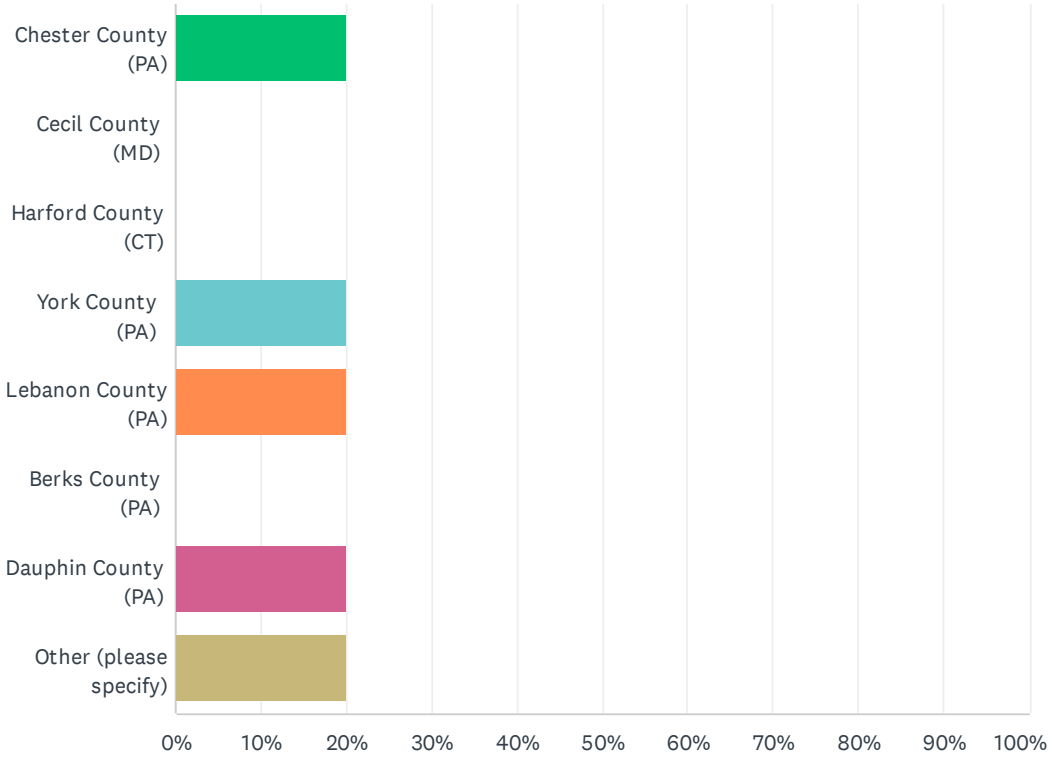
#	ADDRESS 2	DATE
	There are no responses.	

#	CITY/TOWN	DATE
1	Forest Hill	5/10/2024 4:14 PM
2	West Chester	1/25/2024 9:52 AM
3	Steelton	1/25/2024 9:02 AM
4	Lebanon	1/19/2024 8:10 AM

5	York, PA	1/18/2024 9:41 AM
#	**STATE/PROVINCE**	**DATE**
	There are no responses.	
#	**ZIP/POSTAL CODE**	**DATE**
	There are no responses.	
#	**COUNTRY**	**DATE**
	There are no responses.	
#	**EMAIL ADDRESS**	**DATE**
1	djmckinney@harfordpublicsafety.org	5/10/2024 4:14 PM
2	cchristensen@chesco.org	1/25/2024 9:52 AM
3	cfisher@dauphincounty.gov	1/25/2024 9:02 AM
4	gverna@lcdes.org	1/19/2024 8:10 AM
5	shkreiser@yorkcountypa.gov	1/18/2024 9:41 AM
#	**PHONE NUMBER**	**DATE**
1	4437528713	5/10/2024 4:14 PM
2	4844011736	1/25/2024 9:52 AM
3	7175586806	1/25/2024 9:02 AM
4	717-675-1383	1/19/2024 8:10 AM
5	717-840-2981	1/18/2024 9:41 AM

Q2 Please indicate the community which you represent

Answered: 5 Skipped: 0

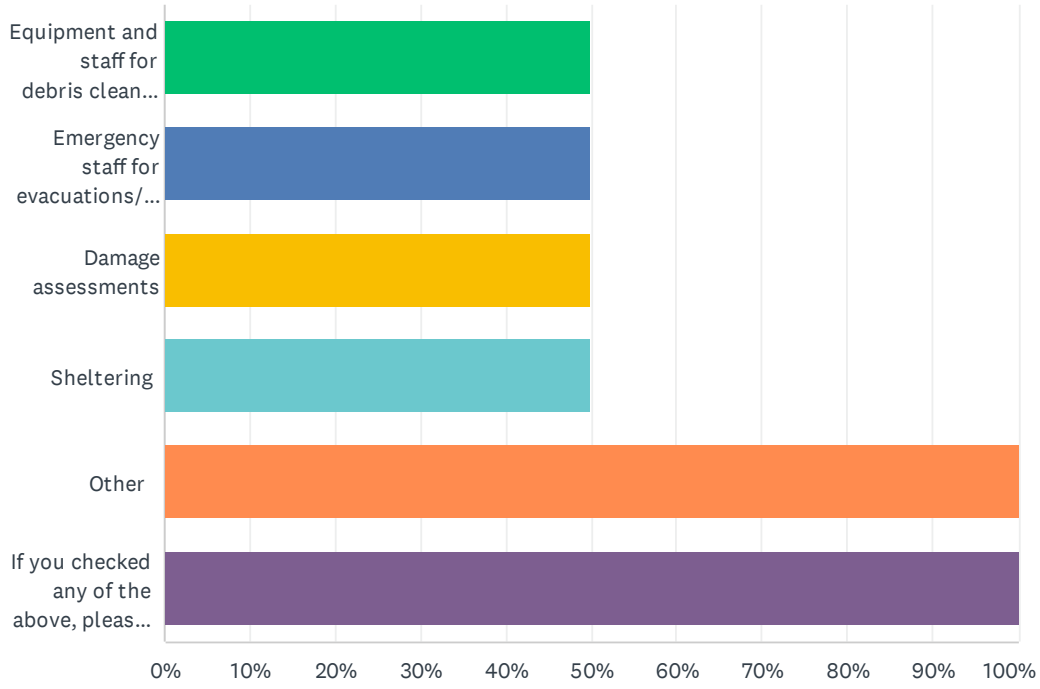


ANSWER CHOICES	RESPONSES	
Chester County (PA)	20.00%	1
Cecil County (MD)	0.00%	0
Harford County (CT)	0.00%	0
York County (PA)	20.00%	1
Lebanon County (PA)	20.00%	1
Berks County (PA)	0.00%	0
Dauphin County (PA)	20.00%	1
Other (please specify)	20.00%	1
TOTAL		5

#	OTHER (PLEASE SPECIFY)	DATE
1	Harford County MD	5/10/2024 4:14 PM

Q3 Do you have any shared service agreements or mutual aid agreements in place with Lancaster County for the following?

Answered: 2 Skipped: 3

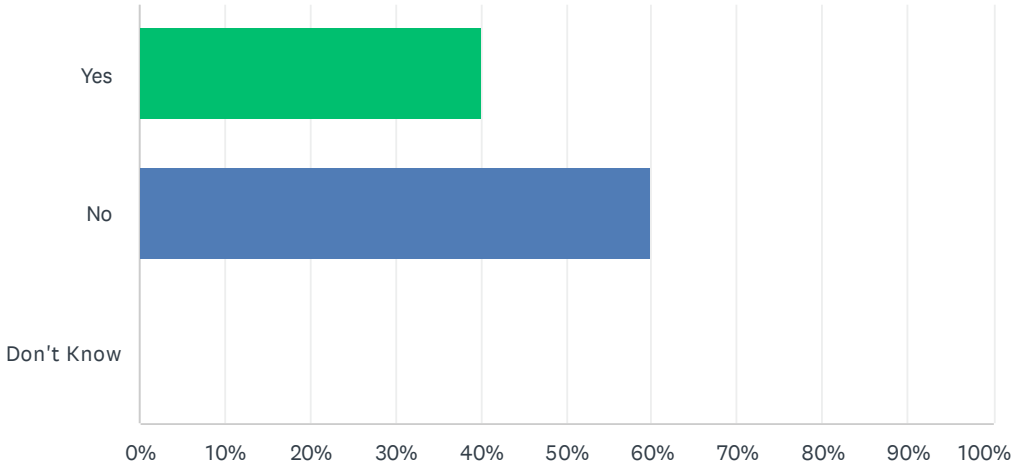


ANSWER CHOICES	RESPONSES	
Equipment and staff for debris cleanup and removal	50.00%	1
Emergency staff for evacuations/disaster response	50.00%	1
Damage assessments	50.00%	1
Sheltering	50.00%	1
Other	100.00%	2
If you checked any of the above, please explain.	100.00%	2
Total Respondents: 2		

#	IF YOU CHECKED ANY OF THE ABOVE, PLEASE EXPLAIN.	DATE
1	Yes, intergovernmental agreement exists among SCTF counties to allow for disaster and emergency response.	1/25/2024 9:11 AM
2	SCTF Mutual Aid Agreements	1/19/2024 8:13 AM

Q4 Is Lancaster County involved in your community's comprehensive emergency operations planning, such as by participating on a planning team, or providing resources during an emergency?

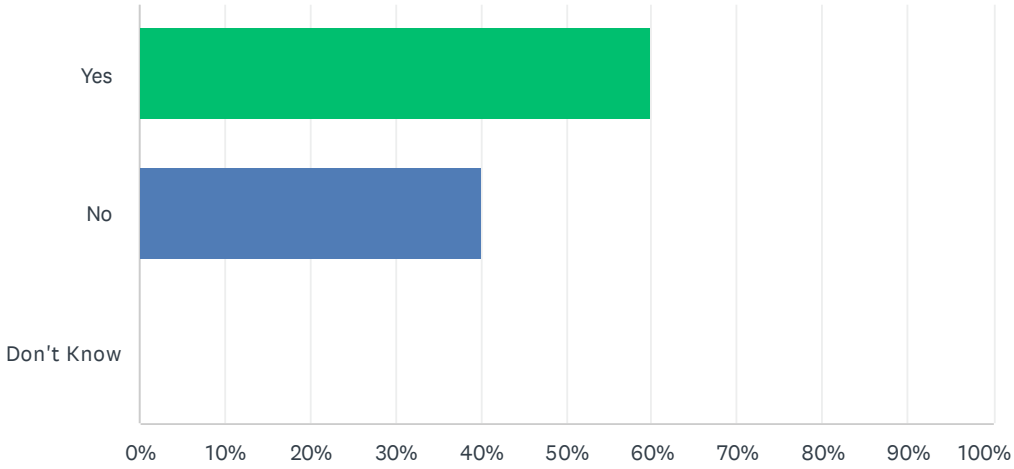
Answered: 5 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	40.00%	2
No	60.00%	3
Don't Know	0.00%	0
TOTAL		5

Q5 Is your community involved in Lancaster County's comprehensive emergency operations planning, such as by participating on a planning team, or providing resources during an emergency?

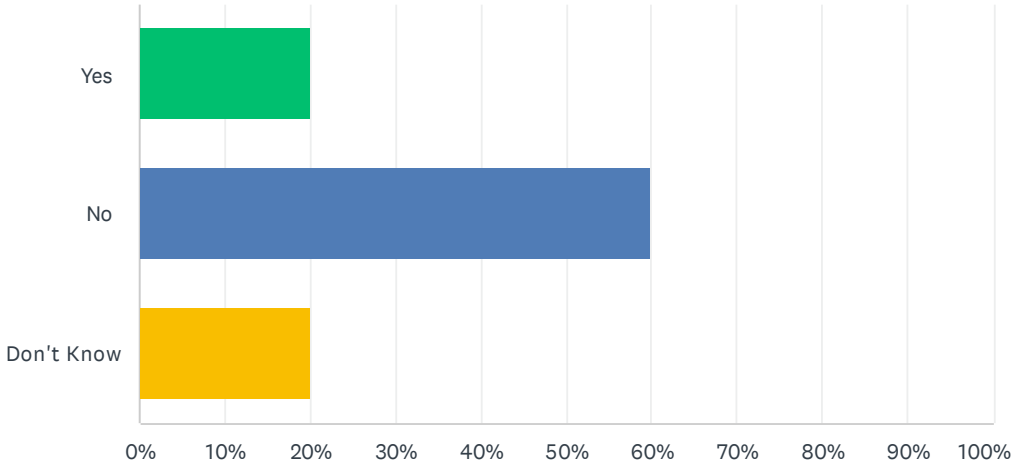
Answered: 5 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	60.00%	3
No	40.00%	2
Don't Know	0.00%	0
TOTAL		5

Q6 Is Lancaster County involved in your community’s Continuity of Operations planning, such as by participating on a planning team, providing resources during an emergency, or carrying out some of your community's essential functions for a period of time?

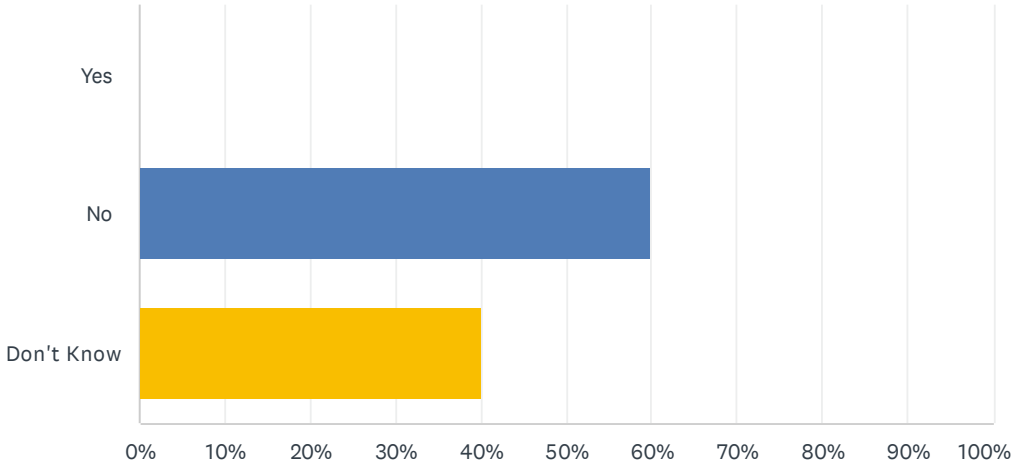
Answered: 5 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	20.00%	1
No	60.00%	3
Don't Know	20.00%	1
TOTAL		5

Q7 Is your community involved in Lancaster County's Continuity of Operations planning, such as by participating on a planning team, providing resources during an emergency, or carrying out some of Lancaster County's essential functions for a period of time?

Answered: 5 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	0.00%	0
No	60.00%	3
Don't Know	40.00%	2
TOTAL		5

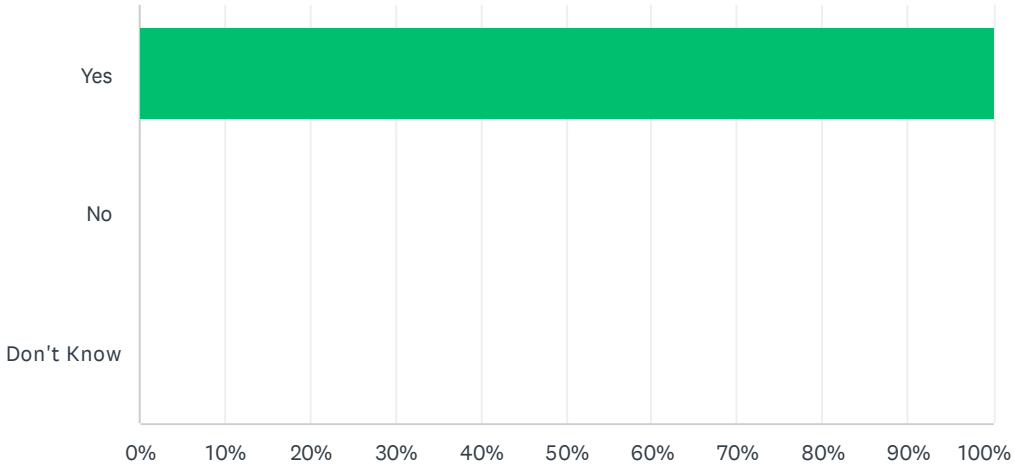
Q8 Thinking about emergency operations and disaster response, please explain how these actions are communicated between your community and Lancaster County.

Answered: 3 Skipped: 2

#	RESPONSES	DATE
1	The EOC would be activated to an appropriate level, and decisions regarding continuity and emergency operations would be adjudicated there amongst key decisionmakers.	1/25/2024 9:11 AM
2	If needed in any of our responses we will contact the Director or Deputy Director	1/19/2024 8:13 AM
3	The most common area where York and Lancaster County work together are for day to day mutual aid for emergency responders. Lancaster County Hazmat also serves as mutual aid for the York County Hazmat team. The EMAs for both counties work together on highway disruption plans for the bridges over the Susquehanna and on Peach Bottom planning efforts.	1/18/2024 9:45 AM

Q9 Does your community have access to contact information for Lancaster County's emergency operation centers?

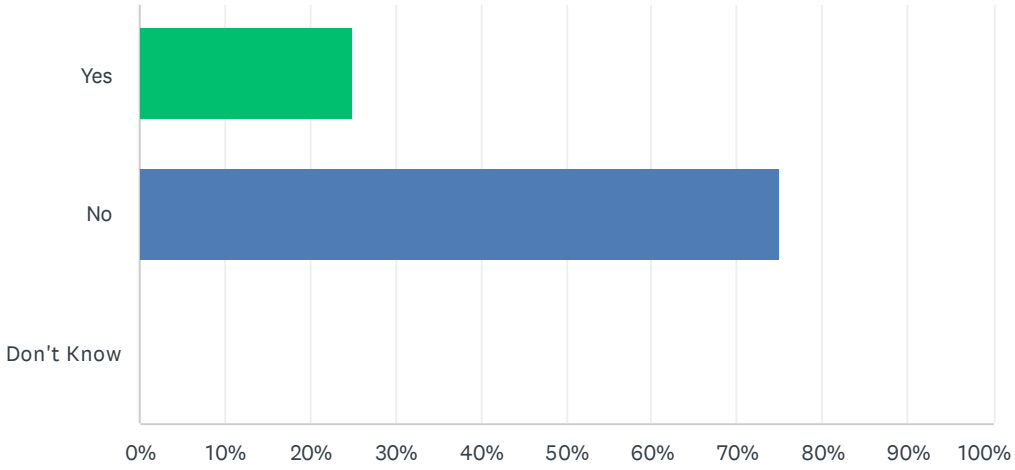
Answered: 4 Skipped: 1



ANSWER CHOICES	RESPONSES	
Yes	100.00%	4
No	0.00%	0
Don't Know	0.00%	0
TOTAL		4

Q10 Does your community share risk and vulnerability assessments (e.g., flood mapping, GIS, Hazus, etc.) with Lancaster County?

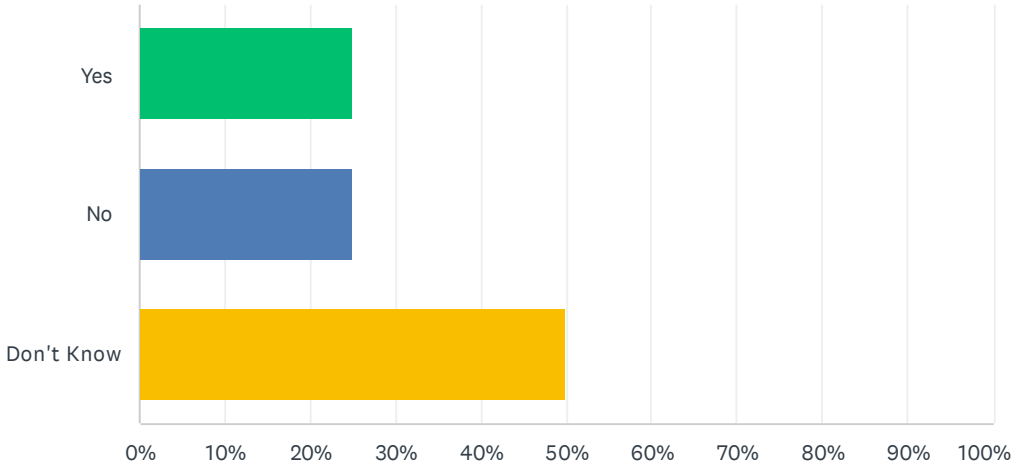
Answered: 4 Skipped: 1



ANSWER CHOICES	RESPONSES	
Yes	25.00%	1
No	75.00%	3
Don't Know	0.00%	0
TOTAL		4

Q11 Is information regarding mitigation shared during the planning and implementation phases of the projects?

Answered: 4 Skipped: 1



ANSWER CHOICES	RESPONSES	
Yes	25.00%	1
No	25.00%	1
Don't Know	50.00%	2
TOTAL		4

Q12 Please describe any situations or hazards that are of concern to both your community and Lancaster County. For example, would flooding along a particular waterway impact both jurisdictions, or are there any facilities or infrastructure that would affect both jurisdictions if it/they failed?

Answered: 3 Skipped: 2

#	RESPONSES	DATE
1	Conewago Creek Initiative impacts both Dauphin and Lancaster Counties. The Initiative holds quarterly meetings for stakeholders. This initiative is focused on restoration of the Conewago creek and nearby areas.	1/25/2024 9:13 AM
2	no	1/19/2024 8:14 AM
3	Susquehanna River flooding and ice jams impact both York and Lancaster counties. Some of our riverside communities receive their utilities from Lancaster to include PP&L and Marietta water. There is also a heavily used rail bridge that crosses the Susquehanna from York to Lancaster. Peach Bottom Nuclear Power Station is also something that affects both counties.	1/18/2024 9:50 AM

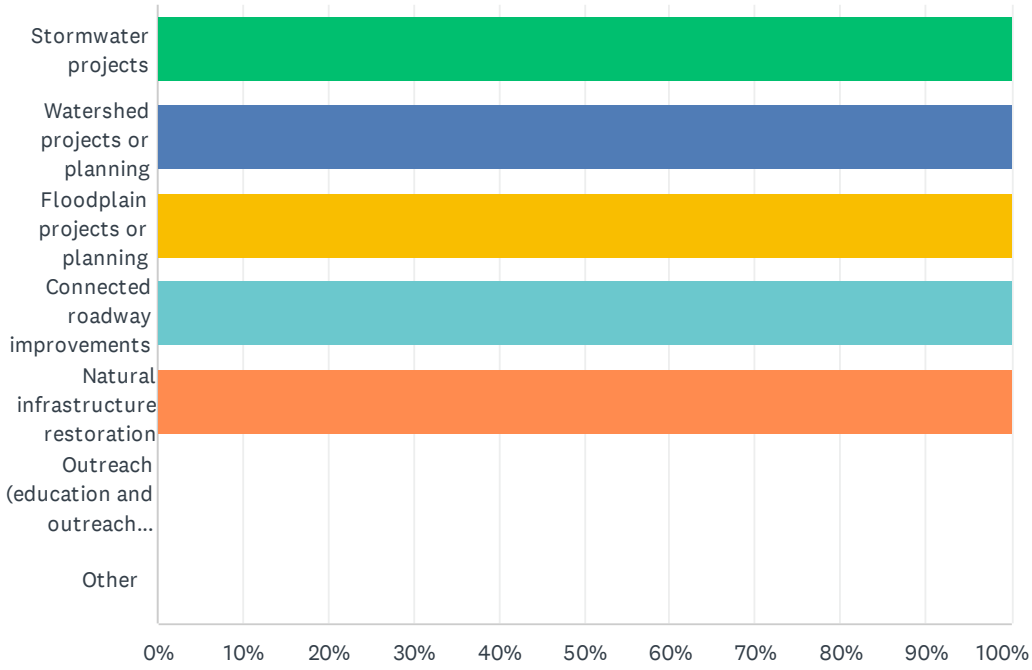
Q13 Please explain how information is shared between communities regarding mitigation projects.

Answered: 3 Skipped: 2

#	RESPONSES	DATE
1	Dauphin County's HMP is posted to the public facing website for all stakeholders. Lancaster and all SCTF counties are invited to the Dauphin County HMP annual meeting as well.	1/25/2024 9:13 AM
2	Unknown	1/19/2024 8:14 AM
3	I'm not sure how much information on mitigation is shared between our two counties. In York, the Planning Commission is the lead agency for hazard mitigation projects, funding, and planning.	1/18/2024 9:50 AM

Q14 Are you aware of any projects for the following that requires cross-collaboration between jurisdictional boundaries?

Answered: 1 Skipped: 4

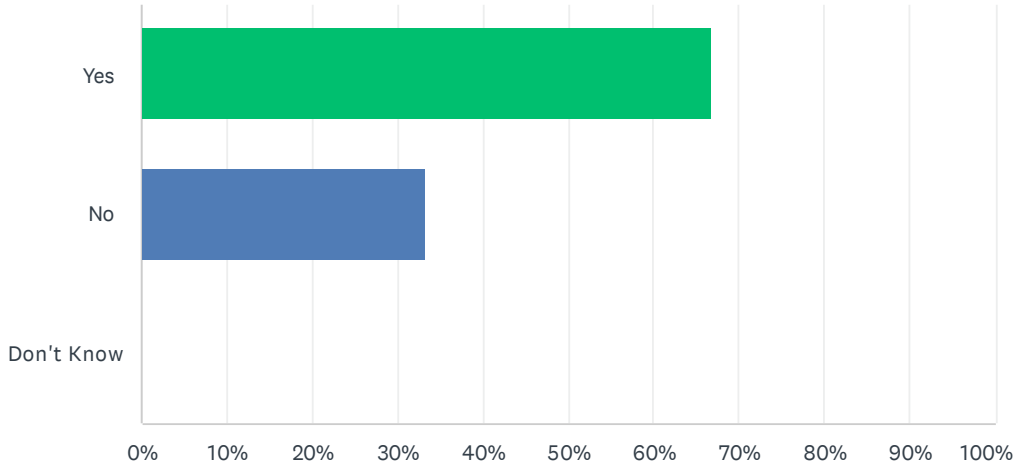


ANSWER CHOICES	RESPONSES	
Stormwater projects	100.00%	1
Watershed projects or planning	100.00%	1
Floodplain projects or planning	100.00%	1
Connected roadway improvements	100.00%	1
Natural infrastructure restoration	100.00%	1
Outreach (education and outreach campaigns, programs for public information, etc.)	0.00%	0
Other	0.00%	0
Total Respondents: 1		

#	IF YOU SELECTED ANYTHING ABOVE, PLEASE EXPLAIN.	DATE
1	The Conewago Creek and associated floodplain does and will require cross collaboration. Additionally, as warehouses continue to saturate the southern end of Londonderry Township near and along PA-230, cross collaboration projects will inevitably arise.	1/25/2024 9:16 AM

Q15 Has your community and Lancaster County collaborated on grant applications?

Answered: 3 Skipped: 2

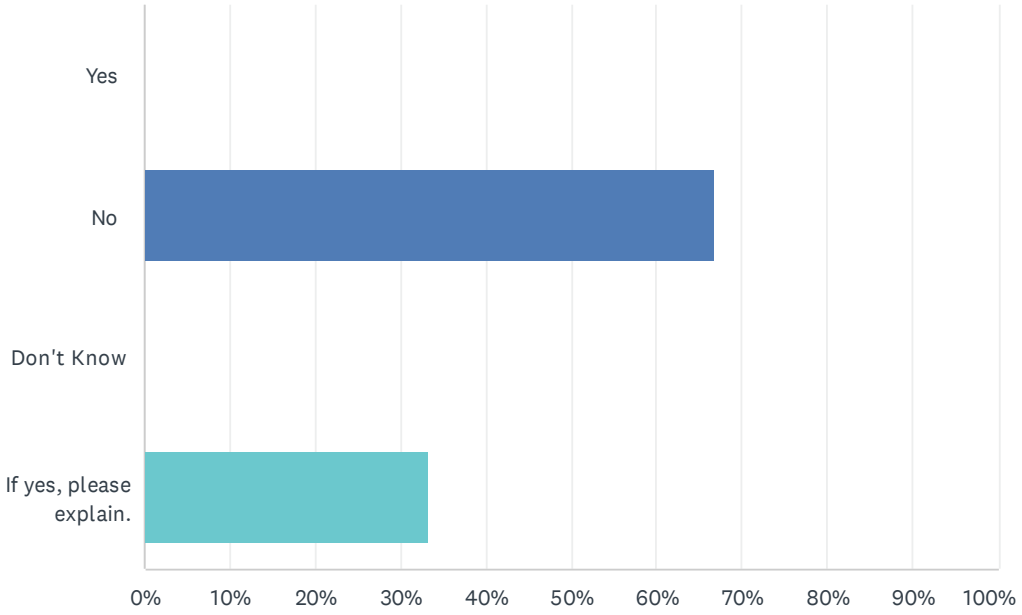


ANSWER CHOICES	RESPONSES	
Yes	66.67%	2
No	33.33%	1
Don't Know	0.00%	0
TOTAL		3

#	IF YES, PLEASE EXPLAIN.	DATE
1	State Homeland Security Grant Program	1/25/2024 9:16 AM
2	Through the entire SCTF	1/19/2024 8:15 AM

Q16 Are you aware of any organizations that carry out education and outreach regarding hazards in both your community and Lancaster County?

Answered: 3 Skipped: 2



ANSWER CHOICES	RESPONSES	
Yes	0.00%	0
No	66.67%	2
Don't Know	0.00%	0
If yes, please explain.	33.33%	1
TOTAL		3

#	IF YES, PLEASE EXPLAIN.	DATE
1	Conewago Creek Initiative	1/25/2024 9:16 AM

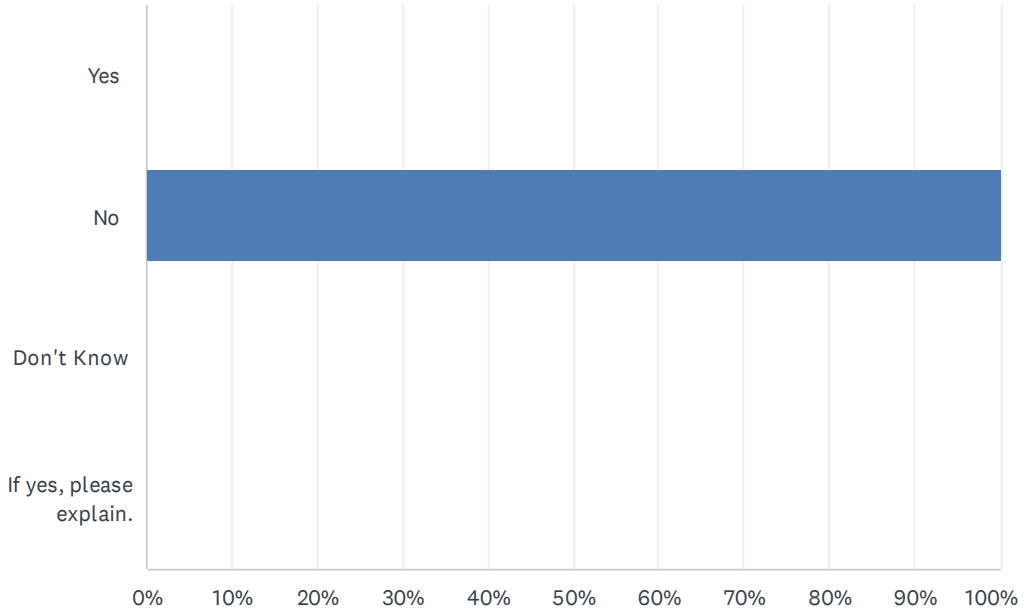
Q17 What are opportunities or ideas to optimize cooperation with Lancaster County on emergency management operations and hazard mitigation projects?

Answered: 1 Skipped: 4

#	RESPONSES	DATE
1	Participation in regional efforts of the SCTF is key for cross collaboration among member counties.	1/25/2024 9:16 AM

Q18 Do you collaborate with Lancaster County on establishing evacuation routes and alternate evacuation routes?

Answered: 3 Skipped: 2

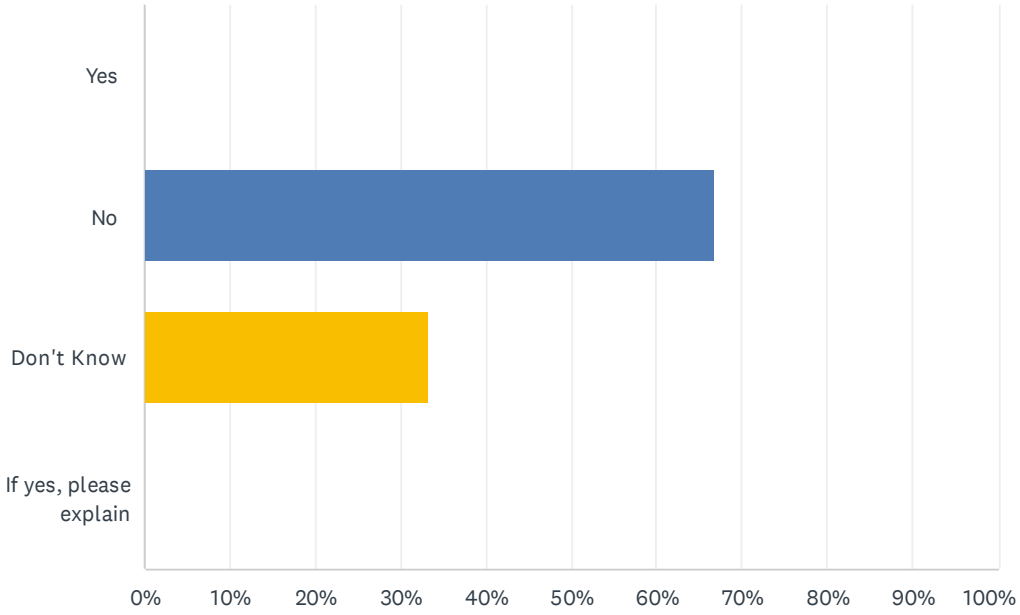


ANSWER CHOICES	RESPONSES	
Yes	0.00%	0
No	100.00%	3
Don't Know	0.00%	0
If yes, please explain.	0.00%	0
TOTAL		3

#	IF YES, PLEASE EXPLAIN.	DATE
	There are no responses.	

Q19 Do you and Lancaster County consult with one another before making evacuation decisions that would impact one another (recommending evacuation routes into neighboring jurisdictions)?

Answered: 3 Skipped: 2

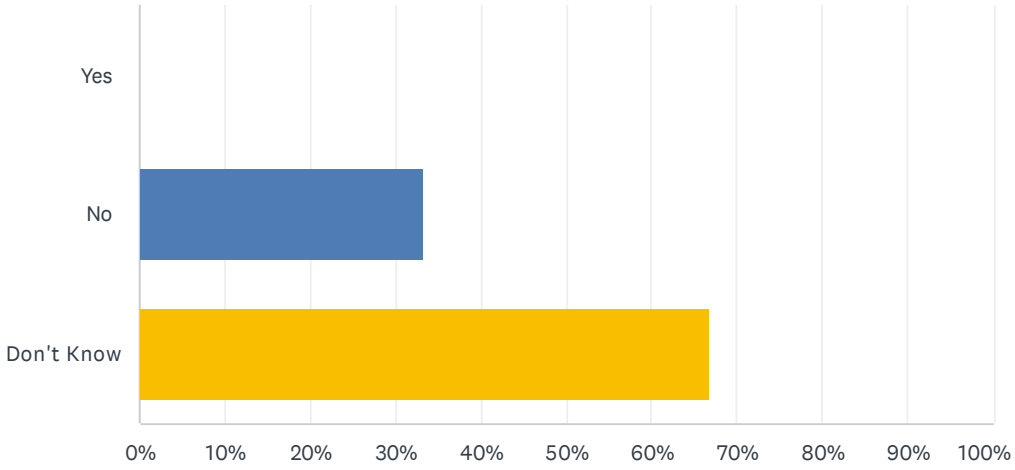


ANSWER CHOICES	RESPONSES	
Yes	0.00%	0
No	66.67%	2
Don't Know	33.33%	1
If yes, please explain	0.00%	0
TOTAL		3

#	IF YES, PLEASE EXPLAIN	DATE
	There are no responses.	

Q20 Are evacuation routes maintained to the same level of protection across jurisdictional lines?

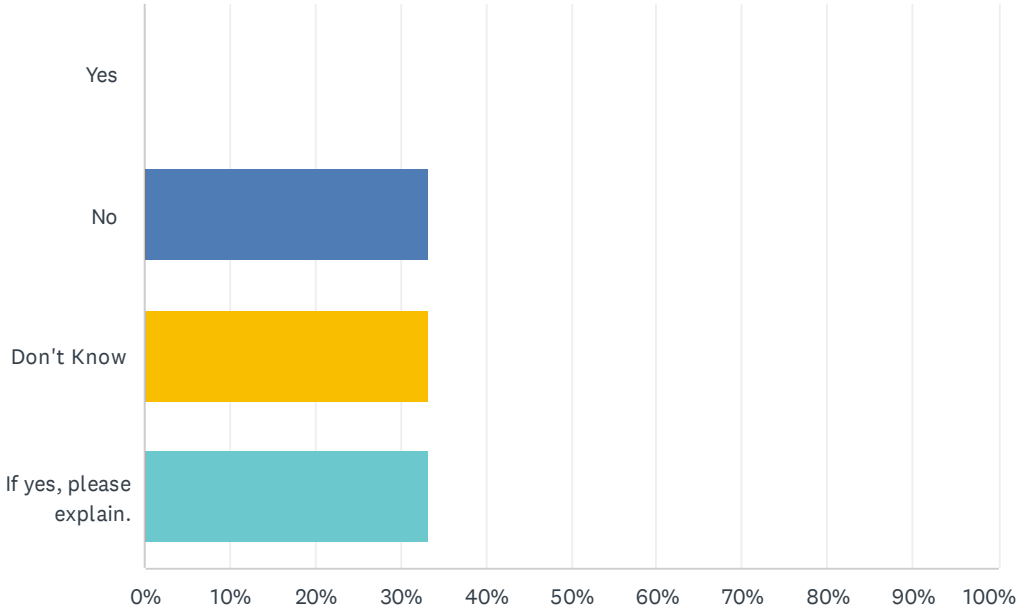
Answered: 3 Skipped: 2



ANSWER CHOICES	RESPONSES	
Yes	0.00%	0
No	33.33%	1
Don't Know	66.67%	2
TOTAL		3

Q21 Do you collaborate with Lancaster County on establishing shelters?

Answered: 3 Skipped: 2

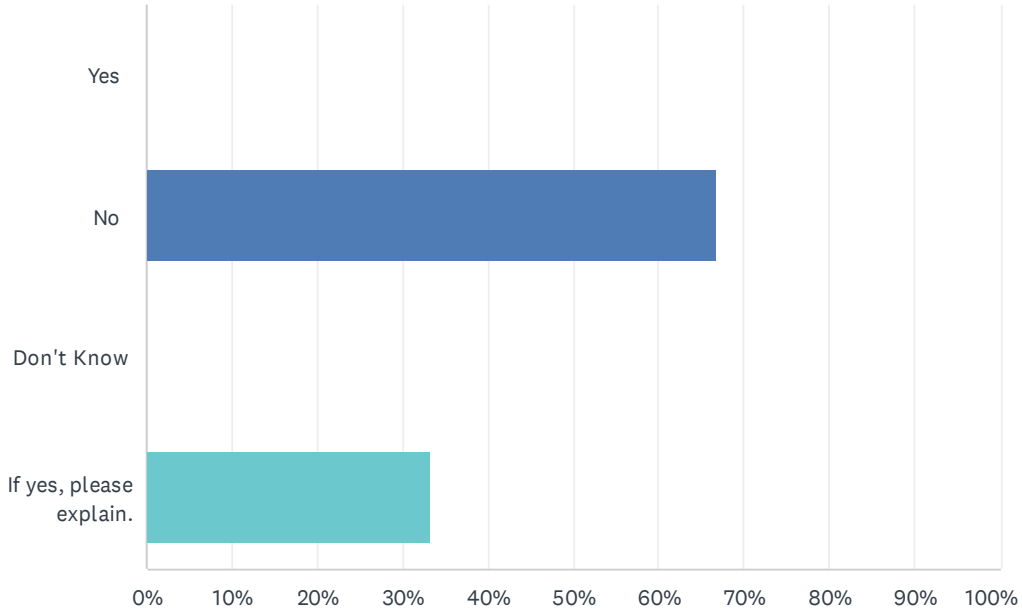


ANSWER CHOICES	RESPONSES	
Yes	0.00%	0
No	33.33%	1
Don't Know	33.33%	1
If yes, please explain.	33.33%	1
TOTAL		3

#	IF YES, PLEASE EXPLAIN.	DATE
1	During a complex disaster impacting both Lancaster & Dauphin Counties, sheltering coordination is required, led by the American Red Cross.	1/25/2024 9:20 AM

Q22 Do you and Lancaster County consult with one another before making sheltering decisions that would impact one another (recommending shelters in neighboring communities)?

Answered: 3 Skipped: 2



ANSWER CHOICES	RESPONSES	
Yes	0.00%	0
No	66.67%	2
Don't Know	0.00%	0
If yes, please explain.	33.33%	1
TOTAL		3

#	IF YES, PLEASE EXPLAIN.	DATE
1	Through discussions with the American Red Cross, Lancaster and Dauphin Counties, a suitable shelter location would be identified.	1/25/2024 9:20 AM

Q23 Do you have any relevant questions or comments for Lancaster County?

Answered: 1 Skipped: 4

#	RESPONSES	DATE
1	N/A	1/25/2024 9:20 AM

APPENDIX F. ADOPTION RESOLUTIONS

Appendix F includes sample resolutions for Lancaster County and each participating municipality to utilize to adoption the 2025 Lancaster County Hazard Mitigation Plan. Once adopted, copies of the resolutions passed by Lancaster County and participating municipalities to adopt the 2025 Lancaster County Hazard Mitigation Plan will be held within this appendix.

<County Name> <Year> Hazard Mitigation Plan
County Adoption Resolution

Resolution No. _____
<County Name>, Pennsylvania

WHEREAS, the municipalities of <County Name>, Pennsylvania are most vulnerable to natural and human-made hazards which may result in loss of life and property, economic hardship, and threats to public health and safety, and

WHEREAS, Section 322 of the Disaster Mitigation Act of 2000 (DMA 2000) requires state and local governments to develop and submit for approval to the President a mitigation plan that outlines processes for identifying their respective natural hazards, risks, and vulnerabilities, and

WHEREAS, <County Name> acknowledges the requirements of Section 322 of DMA 2000 to have an approved Hazard Mitigation Plan as a prerequisite to receiving post-disaster Hazard Mitigation Grant Program funds, and

WHEREAS, the <County Name> <Year> Hazard Mitigation Plan has been developed by the <Name of County Department> and the <Name of County Department> in cooperation with other county departments, local municipal officials, and the citizens of <County Name>, and

WHEREAS, a public involvement process consistent with the requirements of DMA 2000 was conducted to develop the <County Name> <Year> Hazard Mitigation Plan, and

WHEREAS, the <County Name> <Year> Hazard Mitigation Plan recommends mitigation activities that will reduce losses to life and property affected by both natural and human-made hazards that face the County and its municipal governments,

NOW THEREFORE BE IT RESOLVED by the governing body for the County of <County Name> that:

- The <County Name> <Year> Hazard Mitigation Plan is hereby adopted as the official Hazard Mitigation Plan of the County, and

- The respective officials and agencies identified in the implementation strategy of the <County Name> <Year> Hazard Mitigation Plan are hereby directed to implement the recommended activities assigned to them.

ADOPTED, this _____ day of _____, <Year>

ATTEST:

_____

<County Name> **COMMISSIONERS**

By _____

By _____

<County Name> <Year> Hazard Mitigation Plan
Municipal Adoption Resolution

Resolution No. _____
<*Borough/Township of Municipality Name*>, <County Name>, Pennsylvania

WHEREAS, the <*Borough/Township of Municipality Name*>, <County Name>, Pennsylvania is most vulnerable to natural and human-made hazards which may result in loss of life and property, economic hardship, and threats to public health and safety, and

WHEREAS, Section 322 of the Disaster Mitigation Act of 2000 (DMA 2000) requires state and local governments to develop and submit for approval to the President a mitigation plan that outlines processes for identifying their respective natural hazards, risks, and vulnerabilities, and

WHEREAS, the <*Borough/Township of Municipality Name*> acknowledges the requirements of Section 322 of DMA 2000 to have an approved Hazard Mitigation Plan as a prerequisite to receiving post-disaster Hazard Mitigation Grant Program funds, and

WHEREAS, the <County Name> <Year> Hazard Mitigation Plan has been developed by the <Name of County Department> and the <Name of County Department> in cooperation with other county departments, and officials and citizens of <*Borough/Township of Municipality Name*>, and

WHEREAS, a public involvement process consistent with the requirements of DMA 2000 was conducted to develop the <County Name> <Year> Hazard Mitigation Plan, and

WHEREAS, the <County Name> <Year> Hazard Mitigation Plan recommends mitigation activities that will reduce losses to life and property affected by both natural and human-made hazards that face the County and its municipal governments,

NOW THEREFORE BE IT RESOLVED by the governing body for the <*Borough/Township of Municipality Name*>:

- The <County Name> <Year> Hazard Mitigation Plan is hereby adopted as the official Hazard Mitigation Plan of the <*Borough/Township*>, and
- The respective officials and agencies identified in the implementation strategy of the <County Name> <Year> Hazard Mitigation Plan are hereby directed to implement the recommended activities assigned to them.

ADOPTED, this _____ day of _____, <Year>

ATTEST:

_____

<MUNICIPALITY>

By _____

By _____

APPENDIX G. BLANK MITIGATION ACTION WORKSHEET

Appendix G includes a blank copy of the Mitigation Action Worksheet that is used to document information on each mitigation action in the 2025 Lancaster County Hazard Mitigation Plan.

Mitigation Action Worksheet

Municipality(ies):	**Action**
Action Number:	
Location (address, lat/long)	
Mitigation Technique Category	
Hazard(s) Addressed	
Priority (High, Medium, Low)	
Estimated Cost	
Potential Funding Streams	
Timeline	
Lead Agency/Department	
Support Agency(ies)/ Department(s)	
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Mitigation Technique Category

- Local Plans and Regulations (LPR) – These actions include government authorities, policies, or codes that influence the way land and buildings are being developed and built.
- Structure and Infrastructure Project (SIP) – These actions involve (1) modifying existing structures and infrastructure to protect them from a hazard, or (2) removing them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also includes projects to construct manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also preserve or restore the functions of natural systems.
- Education and Awareness Programs (EAP) – These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities.

Costs:

If an estimated cost is known, please provide or use the following ranges:

Low = < $10,000 *Medium* = $10,000 to $100,000 *High* = > $100,000

If costs have not been estimated, please use the following categories:

Low	Possible to fund under existing budget. Project is part of, or can be part of, an existing on-going program.
Medium	Could budget for under existing work plan but would require a reapportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.
High	Would require an increase in revenue via an alternative source (i.e., bonds, grants, fee increases) to implement. Existing funding levels are not adequate to cover the costs of the proposed project.

Timeline: Short = 1 to 5 years Long-Term = 5 years or greater

OG = On-going program DOF = Depending on funding

APPENDIX H. MITIGATION ACTION WORKSHEETS

Appendix H includes the Mitigation Action Worksheets for the actions identified in Section 6: Mitigation Strategy. The Mitigation Action Worksheets are organized by County actions, jurisdictional actions, then actions identified by special districts (i.e. schools districts, municipal water and sewerage authorities).

Municipality(ies):	
Lancaster County, Adamstown Borough, Akron Borough, Bart Township, Brecknock Township, Caernarvon Township, Christiana Borough, Clay Township, Colerain Township, Columbia Borough, Conestoga Township, Conoy Township, Denver Borough, Drumore Township, Earl Township, East Cocalico Township, East Donegal Township, East Drumore Township, East Earl Township, East Hempfield Township, East Lampeter Township, East Petersburg Borough, Eden Township, Elizabeth Township, Elizabethtown Borough, Ephrata Borough, Ephrata Township, Fulton Township, Lancaster City, Lancaster Township, Leacock Township, Lititz Borough, Little Britain Township, Manheim Borough, Manheim Township, Manor Township, Marietta Borough, Martic Township, Millersville Borough, Mount Joy Borough, Mount Joy Township, Mountville Borough, New Holland Borough, Paradise Township, Penn Township, Pequea Township, Providence Township, Quarryville Borough, Rapho Township, Sadsbury Township, Salisbury Township, Strasburg Borough, Terre Hill Borough, Strasburg Township, Upper Leacock Township, Warwick Township, West Cocalico Township, West Donegal Township, West Earl Township, West Hempfield Township, West Lampeter Township	
Action Number:	**Action**
LC-1	Acquire properties in hazard areas, notably those in the 1 percent annual chance floodplain, to convert them to open space.
Location (address, lat/long)	
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP
Timeline	Long
Lead Agency/Department	LCEMD
Support Agency(ies)/ Department(s)	Municipal EMCs
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	
Lancaster County, Adamstown Borough, Akron Borough, Bart Township, Brecknock Township, Caernarvon Township, Christiana Borough, Clay Township, Colerain Township, Columbia Borough, Conestoga Township, Conoy Township, Denver Borough, Drumore Township, Earl Township, East Cocalico Township, East Donegal Township, East Drumore Township, East Earl Township, East Hempfield Township, East Lampeter Township, East Petersburg Borough, Eden Township, Elizabeth Township, Elizabethtown Borough, Ephrata Borough, Ephrata Township, Fulton Township, Lancaster City, Lancaster Township, Leacock Township, Lititz Borough, Little Britain Township, Manheim Borough, Manheim Township, Manor Township, Marietta Borough, Martic Township, Millersville Borough, Mount Joy Borough, Mount Joy Township, Mountville Borough, New Holland Borough, Paradise Township, Penn Township, Pequea Township, Providence Township, Quarryville Borough, Rapho Township, Sadsbury Township, Salisbury Township, Strasburg Borough, Terre Hill Borough, Strasburg Township, Upper Leacock Township, Warwick Township, West Cocalico Township, West Donegal Township, West Earl Township, West Hempfield Township, West Lampeter Township	
Action Number:	**Action**
LC-2	Educate residents in flood-prone areas about the benefits of purchasing flood insurance.
Location (address, lat/long)	
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	LCEMD
Support Agency(ies)/ Department(s)	Municipal Floodplain Administrators
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	
Lancaster County, Adamstown Borough, Akron Borough, Bart Township, Brecknock Township, Caernarvon Township, Christiana Borough, Clay Township, Colerain Township, Columbia Borough, Conestoga Township, Conoy Township, Denver Borough, Drumore Township, Earl Township, East Cocalico Township, East Donegal Township, East Drumore Township, East Earl Township, East Hempfield Township, East Lampeter Township, East Petersburg Borough, Eden Township, Elizabeth Township, Elizabethtown Borough, Ephrata Borough, Ephrata Township, Fulton Township, Lancaster City, Lancaster Township, Leacock Township, Lititz Borough, Little Britain Township, Manheim Borough, Manheim Township, Manor Township, Marietta Borough, Martic Township, Millersville Borough, Mount Joy Borough, Mount Joy Township, Mountville Borough, New Holland Borough, Paradise Township, Penn Township, Pequea Township, Providence Township, Quarryville Borough, Rapho Township, Sadsbury Township, Salisbury Township, Strasburg Borough, Terre Hill Borough, Strasburg Township, Upper Leacock Township, Warwick Township, West Cocalico Township, West Donegal Township, West Earl Township, West Hempfield Township, West Lampeter Township	
Action Number:	**Action**
LC-3	Elevate structures at risk of flooding.
Location (address, lat/long)	
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP
Timeline	Short
Lead Agency/Department	LCEMD
Support Agency(ies)/ Department(s)	Municipal EMCs
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	
Brecknock Township, Caernarvon Township, Christiana Borough, Columbia Borough, Conestoga Township, Conoy Township, Drumore Township, Earl Township, East Donegal Township, East Drumore Township, East Hempfield Township, East Lampeter Township, Elizabethtown Borough, Ephrata Borough, Ephrata Township, Lancaster City, Lancaster Township, Leacock Township, Lititz Borough, Manheim Borough, Manheim Township, Manor Township, Marietta Borough, Martic Township, Mount Joy Borough, Paradise Township, Pequea Township, Rapho Township, Strasburg Township, Upper Leacock Township, West Earl Township, West Hempfield Township, West Lampeter Township	
Action Number:	**Action**
LC-4	Acquire repetitive loss properties to convert them to open space.
Location (address, lat/long)	
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP
Timeline	Long
Lead Agency/Department	LCEMD
Support Agency(ies)/ Department(s)	Municipal EMCs
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Clay Township, East Earl Township, Elizabeth Township, Elizabethtown Borough, Lancaster Township, Manheim Township, Martic Township, West Cocalico Township	Remove any dilapidated or structurally unsound dams that pose a flooding threat to the community.
Action Number:	
LC-5	
Location (address, lat/long)	
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Dam Failure
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	LCEMD
Support Agency(ies)/ Department(s)	DPW, Municipal EMCs, PA DEP Dam Safety
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Denver Borough, Earl Township, Lititz Borough, West Hempfield Township	Work with hazardous materials facilities in the floodplain to floodproof structures up to the 0.2% annual chance flood level.
Action Number:	
LC-6	
Location (address, lat/long)	
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget; LEPC
Timeline	Short
Lead Agency/Department	LCEMD
Support Agency(ies)/ Department(s)	DPW, Municipal EMCs
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
East Earl Township, Salisbury Township	Work with the Lancaster Conservancy to provide information at the Welsh Mountain Nature Preserve regarding the potential for wildfires and how visitors can prevent them.
Action Number:	
LC-7	
Location (address, lat/long)	601 Gault Road, New Holland, PA
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	Wildfire
Priority (High, Medium, Low)	Low
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	LCEMD
Support Agency(ies)/ Department(s)	Municipal EMCs
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Ephrata Borough, Ephrata Township **Action Number:** LC-8	Nissley Acres Floodwater Storage Area - Create a floodwater storage area to assist in reducing flood levels in the Nissley Acres development and a downstream residential area in Ephrata Township that is also prone to flooding. The location of the storage area would be on Borough-owned property so it would not require acquisition of land.
Location (address, lat/long)	
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	LCEMD
Support Agency(ies)/ Department(s)	DPW, Municipal EMCs
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	
Lancaster County; Christiana Borough; Columbia Borough; Conestoga Township; Conoy Township; Denver Borough; Drumore Township; Earl Township; East Cocalico Township; East Donegal Township; East Earl Township; East Hempfield Township; East Lampeter Township; East Petersburg Borough; Elizabethtown Borough; Ephrata Township; Fulton Township; Lancaster City; Leacock Township; Lititz Borough; Manheim Borough; Manheim Township; Manor Township; Marietta Borough; Martic Township; Mount Joy Township; Mountville Borough; Mt Joy Borough; New Holland Borough; Paradise Township; Penn Township; Rapho Township; Sadsbury Township; Salisbury Township; Strasburg Township; Upper Leacock Township; Warwick Township; West Cocalico Township; West Donegal Township; West Hempfield Township	
Action Number:	**Action**
LC-9	Work with the railroad and property owners to provide a wider buffer between the tracks and vegetation.
Location (address, lat/long)	
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	Wildfire
Priority (High, Medium, Low)	Low
Estimated Cost	Medium
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	LCEMD
Support Agency(ies)/ Department(s)	Railroad, Municipal EMCs
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Lancaster County, East Donegal Township	Protect the structures in Chickie's Park to the 0.2% annual chance flood level.
Action Number:	
LC-10	
Location (address, lat/long)	1467 Long Lane, East Donegal Township
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM; Operating Budget
Timeline	Short
Lead Agency/Department	Parks and Recreation
Support Agency(ies)/ Department(s)	DPW, Municipal EMCs, LCEMD
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Lancaster County, Manor Township	Work with PPL to protect the Conestoga KV Substation to the 0.2% annual chance flood level.
Action Number:	
LC-11	
Location (address, lat/long)	1 Powerhouse Road; 39.925915, -76.38515
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	LCEMD
Support Agency(ies)/ Department(s)	Municipal EMCs
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster County, Manor Township	Work with the Safe Harbor Water Power Corporation to protect their facilities to the 0.2% annual chance flood level.
Action Number:	
LC-12	
Location (address, lat/long)	1 Powerhouse Road; 39.92507, -76.3893
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	LCEMD
Support Agency(ies)/ Department(s)	Municipal EMCs, Safe Harbor Water Power Corporation
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Lancaster County, Martic Township	Work with PPL to protect the Holtwood facility to the 0.2% annual chance flood level.
Action Number:	
LC-13	
Location (address, lat/long)	482 Old Holtwood Road; 39.82693, -76.3304
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	LCEMD
Support Agency(ies)/ Department(s)	Municipal EMCs
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	
Lancaster County, Adamstown Borough, Akron Borough, Bart Township, Brecknock Township, Caernarvon Township, Christiana Borough, Clay Township, Colerain Township, Columbia Borough, Conestoga Township, Conoy Township, Denver Borough, Drumore Township, Earl Township, East Cocalico Township, East Donegal Township, East Drumore Township, East Earl Township, East Hempfield Township, East Lampeter Township, East Petersburg Borough, Eden Township, Elizabeth Township, Elizabethtown Borough, Ephrata Borough, Ephrata Township, Fulton Township, Lancaster City, Lancaster Township, Leacock Township, Lititz Borough, Little Britain Township, Manheim Borough, Manheim Township, Manor Township, Marietta Borough, Martic Township, Millersville Borough, Mount Joy Borough, Mount Joy Township, Mountville Borough, New Holland Borough, Paradise Township, Penn Township, Pequea Township, Providence Township, Quarryville Borough, Rapho Township, Sadsbury Township, Salisbury Township, Strasburg Borough, Terre Hill Borough, Strasburg Township, Upper Leacock Township, Warwick Township, West Cocalico Township, West Donegal Township, West Earl Township, West Hempfield Township, West Lampeter Township	
Action Number:	**Action**
LC-14	Develop a hazard information page on the County website, and link from each municipality's website.
Location (address, lat/long)	
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	Drought; Earthquake; Flood, Flash Flood, and Ice Jam; Hailstorm; Invasive Species; Pandemic; Radon Exposure; Subsidence/Sinkhole; Tornado and Windstorm; Wildfire; Winter Storm; Dam Failure; Environmental Hazards; Nuclear Incident; Transportation Accident;
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	LCEMD
Support Agency(ies)/ Department(s)	Municipal EMCs
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	
Lancaster County, Adamstown Borough, Akron Borough, Bart Township, Brecknock Township, Caernarvon Township, Christiana Borough, Clay Township, Colerain Township, Columbia Borough, Conestoga Township, Conoy Township, Denver Borough, Drumore Township, Earl Township, East Cocalico Township, East Donegal Township, East Drumore Township, East Earl Township, East Hempfield Township, East Lampeter Township, East Petersburg Borough, Eden Township, Elizabeth Township, Elizabethtown Borough, Ephrata Borough, Ephrata Township, Fulton Township, Lancaster City, Lancaster Township, Leacock Township, Lititz Borough, Little Britain Township, Manheim Borough, Manheim Township, Manor Township, Marietta Borough, Martic Township, Millersville Borough, Mount Joy Borough, Mount Joy Township, Mountville Borough, New Holland Borough, Paradise Township, Penn Township, Pequea Township, Providence Township, Quarryville Borough, Rapho Township, Sadsbury Township, Salisbury Township, Strasburg Borough, Terre Hill Borough, Strasburg Township, Upper Leacock Township, Warwick Township, West Cocalico Township, West Donegal Township, West Earl Township, West Hempfield Township, West Lampeter Township	
Action Number:	**Action**
LC-15	Develop informational workshops on hazard risks and hazard mitigation for property owners in high-risk areas.
Location (address, lat/long)	
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams; Subsidence/Sinkholes; Wildfire; Dam Failure; Environmental Hazards; Nuclear Incident
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	LCEMD
Support Agency(ies)/ Department(s)	Municipal EMCs, Floodplain Administrators
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	
Lancaster County, Adamstown Borough, Akron Borough, Bart Township, Brecknock Township, Caernarvon Township, Christiana Borough, Clay Township, Colerain Township, Columbia Borough, Conestoga Township, Conoy Township, Denver Borough, Drumore Township, Earl Township, East Cocalico Township, East Donegal Township, East Drumore Township, East Earl Township, East Hempfield Township, East Lampeter Township, East Petersburg Borough, Eden Township, Elizabeth Township, Elizabethtown Borough, Ephrata Borough, Ephrata Township, Fulton Township, Lancaster City, Lancaster Township, Leacock Township, Lititz Borough, Little Britain Township, Manheim Borough, Manheim Township, Manor Township, Marietta Borough, Martic Township, Millersville Borough, Mount Joy Borough, Mount Joy Township, Mountville Borough, New Holland Borough, Paradise Township, Penn Township, Pequea Township, Providence Township, Quarryville Borough, Rapho Township, Sadsbury Township, Salisbury Township, Strasburg Borough, Terre Hill Borough, Strasburg Township, Upper Leacock Township, Warwick Township, West Cocalico Township, West Donegal Township, West Earl Township, West Hempfield Township, West Lampeter Township	
Action Number:	**Action**
LC-16	Increase the frequency of environmental and risk assessments to better determine where land should or should not be developed.
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	All Natural Hazards
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	LCPD
Support Agency(ies)/ Department(s)	LCPC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Lancaster County	Increase support capabilities, better facility evacuation plans, and long-term placement plans.
Action Number:	
LC-17	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Utility Interruption
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	LCEMD
Support Agency(ies)/ Department(s)	LCPD
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Lancaster County	Increase training and exercises available to water and wastewater authorities.
Action Number:	
LC-18	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	Flooding, Flash Flooding, Ice Jam; Dam Failure
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	LCEMD
Support Agency(ies)/ Department(s)	Municipal Water and Sewerage Authorities
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	
Lancaster County, Adamstown Borough, Akron Borough, Bart Township, Brecknock Township, Caernarvon Township, Christiana Borough, Clay Township, Colerain Township, Columbia Borough, Conestoga Township, Conoy Township, Denver Borough, Drumore Township, Earl Township, East Cocalico Township, East Donegal Township, East Drumore Township, East Earl Township, East Hempfield Township, East Lampeter Township, East Petersburg Borough, Eden Township, Elizabeth Township, Elizabethtown Borough, Ephrata Borough, Ephrata Township, Fulton Township, Lancaster City, Lancaster Township, Leacock Township, Lititz Borough, Little Britain Township, Manheim Borough, Manheim Township, Manor Township, Marietta Borough, Martic Township, Millersville Borough, Mount Joy Borough, Mount Joy Township, Mountville Borough, New Holland Borough, Paradise Township, Penn Township, Pequea Township, Providence Township, Quarryville Borough, Rapho Township, Sadsbury Township, Salisbury Township, Strasburg Borough, Terre Hill Borough, Strasburg Township, Upper Leacock Township, Warwick Township, West Cocalico Township, West Donegal Township, West Earl Township, West Hempfield Township, West Lampeter Township	
Action Number:	**Action**
LC-19	Obtain and implement updated flood gauge information into flood inundation mapping to better notify and predict flood hazard areas before flooding occurs. Improving flood forecasting technology to identify new areas for flood mitigation projects.
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Flooding, Flash Flooding, Ice Jam; Dam Failure
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	LCEMD
Support Agency(ies)/ Department(s)	NWS, USGS
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Lancaster County	Improve access control and physical security at county owned and rented properties
Action Number:	
LC-20	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Cyber Incident, Terrorism
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	Operating Budget, HSGP
Timeline	Short
Lead Agency/Department	LCEMD
Support Agency(ies)/ Department(s)	LCPD
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	
Lancaster County, Adamstown Borough, Akron Borough, Bart Township, Brecknock Township, Caernarvon Township, Christiana Borough, Clay Township, Colerain Township, Columbia Borough, Conestoga Township, Conoy Township, Denver Borough, Drumore Township, Earl Township, East Cocalico Township, East Donegal Township, East Drumore Township, East Earl Township, East Hempfield Township, East Lampeter Township, East Petersburg Borough, Eden Township, Elizabeth Township, Elizabethtown Borough, Ephrata Borough, Ephrata Township, Fulton Township, Lancaster City, Lancaster Township, Leacock Township, Lititz Borough, Little Britain Township, Manheim Borough, Manheim Township, Manor Township, Marietta Borough, Martic Township, Millersville Borough, Mount Joy Borough, Mount Joy Township, Mountville Borough, New Holland Borough, Paradise Township, Penn Township, Pequea Township, Providence Township, Quarryville Borough, Rapho Township, Sadsbury Township, Salisbury Township, Strasburg Borough, Terre Hill Borough, Strasburg Township, Upper Leacock Township, Warwick Township, West Cocalico Township, West Donegal Township, West Earl Township, West Hempfield Township, West Lampeter Township	
Action Number:	**Action**
LC-21	Build and foster relationships with community leaders within Lancaster County.
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	LCEMD
Support Agency(ies)/ Department(s)	Municipalities
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	
Lancaster County, Adamstown Borough, Akron Borough, Bart Township, Brecknock Township, Caernarvon Township, Christiana Borough, Clay Township, Colerain Township, Columbia Borough, Conestoga Township, Conoy Township, Denver Borough, Drumore Township, Earl Township, East Cocalico Township, East Donegal Township, East Drumore Township, East Earl Township, East Hempfield Township, East Lampeter Township, East Petersburg Borough, Eden Township, Elizabeth Township, Elizabethtown Borough, Ephrata Borough, Ephrata Township, Fulton Township, Lancaster City, Lancaster Township, Leacock Township, Lititz Borough, Little Britain Township, Manheim Borough, Manheim Township, Manor Township, Marietta Borough, Martic Township, Millersville Borough, Mount Joy Borough, Mount Joy Township, Mountville Borough, New Holland Borough, Paradise Township, Penn Township, Pequea Township, Providence Township, Quarryville Borough, Rapho Township, Sadsbury Township, Salisbury Township, Strasburg Borough, Terre Hill Borough, Strasburg Township, Upper Leacock Township, Warwick Township, West Cocalico Township, West Donegal Township, West Earl Township, West Hempfield Township, West Lampeter Township	
Action Number:	**Action**
LC-22	Research options for modern transportation for emergency workers/plain community farmers to limit exposure time.
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Nuclear Incident; Terrorism; Environmental Hazards
Priority (High, Medium, Low)	Low
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	LCEMD
Support Agency(ies)/ Department(s)	LCPD
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	
Lancaster County, Adamstown Borough, Akron Borough, Bart Township, Brecknock Township, Caernarvon Township, Christiana Borough, Clay Township, Colerain Township, Columbia Borough, Conestoga Township, Conoy Township, Denver Borough, Drumore Township, Earl Township, East Cocalico Township, East Donegal Township, East Drumore Township, East Earl Township, East Hempfield Township, East Lampeter Township, East Petersburg Borough, Eden Township, Elizabeth Township, Elizabethtown Borough, Ephrata Borough, Ephrata Township, Fulton Township, Lancaster City, Lancaster Township, Leacock Township, Lititz Borough, Little Britain Township, Manheim Borough, Manheim Township, Manor Township, Marietta Borough, Martic Township, Millersville Borough, Mount Joy Borough, Mount Joy Township, Mountville Borough, New Holland Borough, Paradise Township, Penn Township, Pequea Township, Providence Township, Quarryville Borough, Rapho Township, Sadsbury Township, Salisbury Township, Strasburg Borough, Terre Hill Borough, Strasburg Township, Upper Leacock Township, Warwick Township, West Cocalico Township, West Donegal Township, West Earl Township, West Hempfield Township, West Lampeter Township	
Action Number:	**Action**
LC-23	Encourage shelter planning at the local levels and continued training and communication with local Red Cross chapter and PA Department of Human Services.
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	LCEMD
Support Agency(ies)/ Department(s)	ARC, PEMA, PADHS, Municipal OEMs
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	
Lancaster County, Adamstown Borough, Akron Borough, Bart Township, Brecknock Township, Caernarvon Township, Christiana Borough, Clay Township, Colerain Township, Columbia Borough, Conestoga Township, Conoy Township, Denver Borough, Drumore Township, Earl Township, East Cocalico Township, East Donegal Township, East Drumore Township, East Earl Township, East Hempfield Township, East Lampeter Township, East Petersburg Borough, Eden Township, Elizabeth Township, Elizabethtown Borough, Ephrata Borough, Ephrata Township, Fulton Township, Lancaster City, Lancaster Township, Leacock Township, Lititz Borough, Little Britain Township, Manheim Borough, Manheim Township, Manor Township, Marietta Borough, Martic Township, Millersville Borough, Mount Joy Borough, Mount Joy Township, Mountville Borough, New Holland Borough, Paradise Township, Penn Township, Pequea Township, Providence Township, Quarryville Borough, Rapho Township, Sadsbury Township, Salisbury Township, Strasburg Borough, Terre Hill Borough, Strasburg Township, Upper Leacock Township, Warwick Township, West Cocalico Township, West Donegal Township, West Earl Township, West Hempfield Township, West Lampeter Township	
Action Number:	**Action**
LC-24	Expand the use of translation services in the County to improve and build relationships with diverse community groups.
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	LCEMD
Support Agency(ies)/ Department(s)	LCPD
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	
Lancaster County, Adamstown Borough, Akron Borough, Bart Township, Brecknock Township, Caernarvon Township, Christiana Borough, Clay Township, Colerain Township, Columbia Borough, Conestoga Township, Conoy Township, Denver Borough, Drumore Township, Earl Township, East Cocalico Township, East Donegal Township, East Drumore Township, East Earl Township, East Hempfield Township, East Lampeter Township, East Petersburg Borough, Eden Township, Elizabeth Township, Elizabethtown Borough, Ephrata Borough, Ephrata Township, Fulton Township, Lancaster City, Lancaster Township, Leacock Township, Lititz Borough, Little Britain Township, Manheim Borough, Manheim Township, Manor Township, Marietta Borough, Martic Township, Millersville Borough, Mount Joy Borough, Mount Joy Township, Mountville Borough, New Holland Borough, Paradise Township, Penn Township, Pequea Township, Providence Township, Quarryville Borough, Rapho Township, Sadsbury Township, Salisbury Township, Strasburg Borough, Terre Hill Borough, Strasburg Township, Upper Leacock Township, Warwick Township, West Cocalico Township, West Donegal Township, West Earl Township, West Hempfield Township, West Lampeter Township	
Action Number:	**Action**
LC-25	Better facilitate cultural integration into planning and exercises.
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	LCEMD
Support Agency(ies)/ Department(s)	LCPD
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Lancaster County	Work with the county CISO and Public Safety Technology staff to develop redundancies for 9-1-1 communications infrastructure and emergency management operation capabilities.
Action Number:	
LC-26	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Cyber Incidents; Terrorism; Utility Interruption
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget, EMPG
Timeline	Short
Lead Agency/Department	LCEMD
Support Agency(ies)/ Department(s)	CISO, IT
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Lancaster County **Action Number:** LC-27	Build and foster relationships between the County Commissioners office, the County Communications Director and local news media. Increase awareness and training to manage mis information in all forms that have the potential to result in civil unrest.
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	LCEMD
Support Agency(ies)/ Department(s)	County Commissioners, County Communications
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Lancaster County	Update urban and village growth area boundaries for Future Land Use and Transportation Map which will improve land use patterns and help to better manage stormwater runoff.
Action Number:	
LC-28	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Flooding, Flash Flooding, Ice Jam; Dam Failure
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	LCPD
Support Agency(ies)/ Department(s)	LCPC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	
Lancaster County, Adamstown Borough, Akron Borough, Bart Township, Brecknock Township, Caernarvon Township, Christiana Borough, Clay Township, Colerain Township, Columbia Borough, Conestoga Township, Conoy Township, Denver Borough, Drumore Township, Earl Township, East Cocalico Township, East Donegal Township, East Drumore Township, East Earl Township, East Hempfield Township, East Lampeter Township, East Petersburg Borough, Eden Township, Elizabeth Township, Elizabethtown Borough, Ephrata Borough, Ephrata Township, Fulton Township, Lancaster City, Lancaster Township, Leacock Township, Lititz Borough, Little Britain Township, Manheim Borough, Manheim Township, Manor Township, Marietta Borough, Martic Township, Millersville Borough, Mount Joy Borough, Mount Joy Township, Mountville Borough, New Holland Borough, Paradise Township, Penn Township, Pequea Township, Providence Township, Quarryville Borough, Rapho Township, Sadsbury Township, Salisbury Township, Strasburg Borough, Terre Hill Borough, Strasburg Township, Upper Leacock Township, Warwick Township, West Cocalico Township, West Donegal Township, West Earl Township, West Hempfield Township, West Lampeter Township	
Action Number:	**Action**
LC-29	Draft regional comprehensive plans which may lead to improved growth management and opens space, natural land, and agricultural land preservation
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Flooding, Flash Flooding, Ice Jam; Dam Failure
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	LCPD
Support Agency(ies)/ Department(s)	Municipalities
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster County	Update the Countywide Act 167 Stormwater Management Plan to encourage regional approaches to stormwater management and flood mitigation and encourage creative and innovative approaches, including regional stormwater facilities, floodplain restoration and wetland creation, critical aquifer recharge areas, and increased tree canopy.
Action Number:	
LC-30	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Flooding, Flash Flooding, Ice Jam; Dam Failure
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	LCPD
Support Agency(ies)/ Department(s)	LCPC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	
Lancaster County, Adamstown Borough, Akron Borough, Bart Township, Brecknock Township, Caernarvon Township, Christiana Borough, Clay Township, Colerain Township, Columbia Borough, Conestoga Township, Conoy Township, Denver Borough, Drumore Township, Earl Township, East Cocalico Township, East Donegal Township, East Drumore Township, East Earl Township, East Hempfield Township, East Lampeter Township, East Petersburg Borough, Eden Township, Elizabeth Township, Elizabethtown Borough, Ephrata Borough, Ephrata Township, Fulton Township, Lancaster City, Lancaster Township, Leacock Township, Lititz Borough, Little Britain Township, Manheim Borough, Manheim Township, Manor Township, Marietta Borough, Martic Township, Millersville Borough, Mount Joy Borough, Mount Joy Township, Mountville Borough, New Holland Borough, Paradise Township, Penn Township, Pequea Township, Providence Township, Quarryville Borough, Rapho Township, Sadsbury Township, Salisbury Township, Strasburg Borough, Terre Hill Borough, Strasburg Township, Upper Leacock Township, Warwick Township, West Cocalico Township, West Donegal Township, West Earl Township, West Hempfield Township, West Lampeter Township	
Action Number:	**Action**
LC-31	As part of Phase 2 of the Act 167 Plan, have the County and municipalities adopt a new model stormwater ordinance for consistency throughout entire watersheds, and across boundaries.
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Flooding, Flash Flooding, Ice Jam; Dam Failure
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	LCPD
Support Agency(ies)/ Department(s)	Municipalities
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	
Lancaster County, Adamstown Borough, Akron Borough, Bart Township, Brecknock Township, Caernarvon Township, Christiana Borough, Clay Township, Colerain Township, Columbia Borough, Conestoga Township, Conoy Township, Denver Borough, Drumore Township, Earl Township, East Cocalico Township, East Donegal Township, East Drumore Township, East Earl Township, East Hempfield Township, East Lampeter Township, East Petersburg Borough, Eden Township, Elizabeth Township, Elizabethtown Borough, Ephrata Borough, Ephrata Township, Fulton Township, Lancaster City, Lancaster Township, Leacock Township, Lititz Borough, Little Britain Township, Manheim Borough, Manheim Township, Manor Township, Marietta Borough, Martic Township, Millersville Borough, Mount Joy Borough, Mount Joy Township, Mountville Borough, New Holland Borough, Paradise Township, Penn Township, Pequea Township, Providence Township, Quarryville Borough, Rapho Township, Sadsbury Township, Salisbury Township, Strasburg Borough, Terre Hill Borough, Strasburg Township, Upper Leacock Township, Warwick Township, West Cocalico Township, West Donegal Township, West Earl Township, West Hempfield Township, West Lampeter Township	
Action Number:	**Action**
LC-32	Whenever a capital improvement, transportation, or land development project is undertaken, look for ways to stack benefits, e.g. when replacing or repairing bridges/culverts look for opportunities for streambank restoration, improved channel design and floodplain management. When doing road projects, look for ways to incorporate green infrastructure.
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Flooding, Flash Flooding, Ice Jam; Dam Failure; Transportation Accidents
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Long
Lead Agency/Department	LCPD
Support Agency(ies)/ Department(s)	LCPC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster County, Clay Township, East Earl Township, Elizabeth Township, Elizabethtown Borough, Manheim Township, Martic Township, West Cocalico Township	Engage in coordinated removal of legacy sediments before dam is removed and utilize floodplain restoration to stabilize and restore the stream/creek and ecosystem.
Action Number:	
LC-33	
Location (address, lat/long)	N/A
Mitigation Technique Category	Natural Systems Protection (NSP)
Hazard(s) Addressed	Flooding, Flash Flooding, Ice Jam; Dam Failure
Priority (High, Medium, Low)	Low
Estimated Cost	Medium
Potential Funding Streams	Operating Budget, BRIC, HHPD
Timeline	Long
Lead Agency/Department	LCEMD
Support Agency(ies)/ Department(s)	LCPD
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	
Lancaster County, Adamstown Borough, Akron Borough, Bart Township, Brecknock Township, Caernarvon Township, Christiana Borough, Clay Township, Colerain Township, Columbia Borough, Conestoga Township, Conoy Township, Denver Borough, Drumore Township, Earl Township, East Cocalico Township, East Donegal Township, East Drumore Township, East Earl Township, East Hempfield Township, East Lampeter Township, East Petersburg Borough, Eden Township, Elizabeth Township, Elizabethtown Borough, Ephrata Borough, Ephrata Township, Fulton Township, Lancaster City, Lancaster Township, Leacock Township, Lititz Borough, Little Britain Township, Manheim Borough, Manheim Township, Manor Township, Marietta Borough, Martic Township, Millersville Borough, Mount Joy Borough, Mount Joy Township, Mountville Borough, New Holland Borough, Paradise Township, Penn Township, Pequea Township, Providence Township, Quarryville Borough, Rapho Township, Sadsbury Township, Salisbury Township, Strasburg Borough, Terre Hill Borough, Strasburg Township, Upper Leacock Township, Warwick Township, West Cocalico Township, West Donegal Township, West Earl Township, West Hempfield Township, West Lampeter Township	
Action Number:	**Action**
LC-34	Enhance public outreach and education capabilities by providing updated preparedness, prevention, and mitigation materials at publicly available locations. Provide these materials in multiple languages which are prominent in Lancaster County.
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	LCEMD
Support Agency(ies)/ Department(s)	LCPD
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	
Lancaster County, Adamstown Borough, Akron Borough, Bart Township, Brecknock Township, Caernarvon Township, Christiana Borough, Clay Township, Colerain Township, Columbia Borough, Conestoga Township, Conoy Township, Denver Borough, Drumore Township, Earl Township, East Cocalico Township, East Donegal Township, East Drumore Township, East Earl Township, East Hempfield Township, East Lampeter Township, East Petersburg Borough, Eden Township, Elizabeth Township, Elizabethtown Borough, Ephrata Borough, Ephrata Township, Fulton Township, Lancaster City, Lancaster Township, Leacock Township, Lititz Borough, Little Britain Township, Manheim Borough, Manheim Township, Manor Township, Marietta Borough, Martic Township, Millersville Borough, Mount Joy Borough, Mount Joy Township, Mountville Borough, New Holland Borough, Paradise Township, Penn Township, Pequea Township, Providence Township, Quarryville Borough, Rapho Township, Sadsbury Township, Salisbury Township, Strasburg Borough, Terre Hill Borough, Strasburg Township, Upper Leacock Township, Warwick Township, West Cocalico Township, West Donegal Township, West Earl Township, West Hempfield Township, West Lampeter Township	
Action Number:	**Action**
LC-35	There is an insufficient amount of data surrounding dam inundation and the resulting flooding within the County. The County will conduct dam inundation modeling in high-risk areas, prioritizing those dams and their downstream areas that are classified as a high or significant hazard.
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Flooding, Flash Flooding, Ice Jam; Dam Failure
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	Operating Budget, HMGP, BRIC, HHPD
Timeline	Short
Lead Agency/Department	LCEMD
Support Agency(ies)/ Department(s)	LCPD
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	
Lancaster County, Adamstown Borough, Akron Borough, Bart Township, Brecknock Township, Caernarvon Township, Christiana Borough, Clay Township, Colerain Township, Columbia Borough, Conestoga Township, Conoy Township, Denver Borough, Drumore Township, Earl Township, East Cocalico Township, East Donegal Township, East Drumore Township, East Earl Township, East Hempfield Township, East Lampeter Township, East Petersburg Borough, Eden Township, Elizabeth Township, Elizabethtown Borough, Ephrata Borough, Ephrata Township, Fulton Township, Lancaster City, Lancaster Township, Leacock Township, Lititz Borough, Little Britain Township, Manheim Borough, Manheim Township, Manor Township, Marietta Borough, Martic Township, Millersville Borough, Mount Joy Borough, Mount Joy Township, Mountville Borough, New Holland Borough, Paradise Township, Penn Township, Pequea Township, Providence Township, Quarryville Borough, Rapho Township, Sadsbury Township, Salisbury Township, Strasburg Borough, Terre Hill Borough, Strasburg Township, Upper Leacock Township, Warwick Township, West Cocalico Township, West Donegal Township, West Earl Township, West Hempfield Township, West Lampeter Township	
Action Number:	**Action**
LC-36	Establish working relationships with PA DEP's Dam Safety Program leaders and the public and private dam owners in the county. Include these groups and individuals as stakeholders in the next HMP update.
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Dam Failure
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	LCEMD
Support Agency(ies)/ Department(s)	Municipal EMCs
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	
Lancaster County, Adamstown Borough, Akron Borough, Bart Township, Brecknock Township, Caernarvon Township, Christiana Borough, Clay Township, Colerain Township, Columbia Borough, Conestoga Township, Conoy Township, Denver Borough, Drumore Township, Earl Township, East Cocalico Township, East Donegal Township, East Drumore Township, East Earl Township, East Hempfield Township, East Lampeter Township, East Petersburg Borough, Eden Township, Elizabeth Township, Elizabethtown Borough, Ephrata Borough, Ephrata Township, Fulton Township, Lancaster City, Lancaster Township, Leacock Township, Lititz Borough, Little Britain Township, Manheim Borough, Manheim Township, Manor Township, Marietta Borough, Martic Township, Millersville Borough, Mount Joy Borough, Mount Joy Township, Mountville Borough, New Holland Borough, Paradise Township, Penn Township, Pequea Township, Providence Township, Quarryville Borough, Rapho Township, Sadsbury Township, Salisbury Township, Strasburg Borough, Terre Hill Borough, Strasburg Township, Upper Leacock Township, Warwick Township, West Cocalico Township, West Donegal Township, West Earl Township, West Hempfield Township, West Lampeter Township	
Action Number:	**Action**
LC-37	The County will encourage local jurisdictions, during future reviews and revisions of local codes and ordinances, to integrate hazard mitigation principles and use available tools and resources from FEMA and other sources to integrate climate adaptation planning, to strengthen their regulatory capabilities and set higher standards to reduce hazard risk.
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Dam Failure; Earthquake; Flood, Flash Flood, and Ice Jams; Hailstorm; Tornado, Windstorm; Wildfire; Winter Storm
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	LCPD
Support Agency(ies)/ Department(s)	LCPC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Akron Borough	Protect Wastewater Pump #126 to the 0.2% annual chance flood level.
Action Number:	
AkB-1	
Location (address, lat/long)	40.167978, -76.211526
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Akron Borough	Upgrade sewer infrastructure in the Heritage Development to prevent stormwater infiltration.
Action Number:	
AkB-2	
Location (address, lat/long)	Heritage Road, Westbrook Drive, Knollwood Drive, Ridgewood Drive
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams; Utility Interruption
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Akron Borough	Identify a suitable location for a back-up Administrative building where continuity of operations can occur should the primary facility become impacted. Identify a plan for Borough employees to work remotely if needed.
Action Number:	
AkB-3	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Cyber Incidents, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMGP, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Borough Administration
Support Agency(ies)/ Department(s)	Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Akron Borough	Many roads in the Borough experience flooding. Redesign areas prone to flooding or seek other feasible flood mitigation measures.
Action Number:	
AkB-4	
Location (address, lat/long)	Multiple Locations
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMGP, BRIC
Timeline	Short
Lead Agency/Department	FPA
Support Agency(ies)/ Department(s)	Engineer
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Akron Borough	Road conditions in the winter can be treacherous to drivers. Create a winter road maintenance plan to specify when Public Works should begin road treatments and plowing activities.
Action Number:	
AkB-5	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Winter Storm, Transportation Accidents
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Bart Township	Protect Jackson's Mill Covered Bridge to the 0.2% annual chance flood level.
Action Number:	
BaT-1	
Location (address, lat/long)	39.89672727, -76.08015027
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Bart Township	Protect Willow Mill to the 0.2% annual chance flood level.
Action Number:	
BaT-2	
Location (address, lat/long)	39.89725311, -76.07971138
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Brecknock Township	Protect the Northern Lancaster County Authority facility to the 0.2% annual chance flood level.
Action Number:	
BrkT-1	
Location (address, lat/long)	983 Beam Rd; 40.178472, -76.059824
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Public Works Director
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Brecknock Township	Protect Well #7 to the 0.2% annual chance flood level.
Action Number:	
BrkT-2	
Location (address, lat/long)	40.22559, -76.066485
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Brecknock Township	Protect Good's Mill to the 0.2% annual chance flood level.
Action Number:	
BrkT-3	
Location (address, lat/long)	40.17566916, -76.05137805
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Brecknock Township	Protect Oberholtzer's Mill to the 0.2% annual chance flood level.
Action Number:	
BrkT-4	
Location (address, lat/long)	40.17589816, -76.08089352
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Brecknock Township	Protect Red Run Covered Bridge to the 0.2% annual chance flood level.
Action Number:	
BrkT-5	
Location (address, lat/long)	40.17509253, -76.08155853
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Caernarvon Township	Hammertown Road Bridge - Address flood problem at the bridge at 141 Hammertown Road.
Action Number:	
CaeT-1	
Location (address, lat/long)	40.138219, -75.967055
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Caernarvon Township	Turkey Hill Road Culvert - Upgrade the culvert at 2051 Turkey Hill Road with one with a higher capacity.
Action Number:	
CaeT-2	
Location (address, lat/long)	40.154469, -75.984347
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Caernarvon Township	Protect Conestoga Dam to the 0.2% annual chance flood level.
Action Number:	
CaeT-3	
Location (address, lat/long)	40.13972222, -75.99416667
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Caernarvon Township	Protect Pool Forge Bridge to the 0.2% annual chance flood level.
Action Number:	
CaeT-4	
Location (address, lat/long)	40.12985833, -75.97635842
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Caernarvon Township	Protect Shearer's Mill Covered Bridge to the 0.2% annual chance flood level.
Action Number:	
CaeT-5	
Location (address, lat/long)	40.14121343, -75.99789672
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Caernarvon Township	Protect Weaver's Mill Covered Bridge to the 0.2% annual chance flood level.
Action Number:	
CaeT-6	
Location (address, lat/long)	40.14123616, -75.99783978
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Caernarvon Township	Protect William Witman House to the 0.2% annual chance flood level.
Action Number:	
CaeT-7	
Location (address, lat/long)	40.12474154, -75.97761628
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Caernarvon Township	The Fire Company, Township Building, and Township Garage do not have back-up generators to maintain continuity of operations during an emergency event. The Public Works Superintendent will work alongside the jurisdictional engineer to identify the necessary capacity for each emergency generator. Once identified, Public Works will have the emergency generators installed at each facility. Public Works will be responsible for maintaining the emergency generator.
Action Number:	
CaeT-8	
Location (address, lat/long)	Fire Company, Township Building, and Township Garage
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Cyber Incidents, Earthquake, Tornado/Wind Storm, Utility Interruption, Winter Storm
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMGP, BRIC; USDA Community Facilities Grant Program; Annual Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Fire Company, Township Administration, Engineer
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Caernarvon Township	Boot Jack Road Culvert - Upgrade the culvert on Boot Jack Road with one with a higher capacity.
Action Number:	
CaeT-9	
Location (address, lat/long)	Boot Jack Road Culvert
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Caernarvon Township	Invest in cyber insurance for the Township.
Action Number:	
CaeT-10	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Cyber Incidents
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Township Administration
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Caernarvon Township	Research, and potentially invest, in Savvy Citizen, a mass notification and alert system.
Action Number:	
CaeT-11	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	Township Administration
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Caernarvon Township	Work to create an outreach program focused on expanding community networks to make the Township population aware of events and incidents, especially those who may not have access to internet and phones.
Action Number:	
CaeT-12	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Caernarvon Township	Evaluate the need for snow fences along Township and State roads to prevent blowing and drifting snow from impacting travelers.
Action Number:	
CaeT-13	
Location (address, lat/long)	Multiple Locations
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Winter Storm, Transportation Accidents
Priority (High, Medium, Low)	Low
Estimated Cost	Medium
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Clay Township	Protect Clay Roller Mill to the 0.2% annual chance flood level.
Action Number:	
ClyT-1	
Location (address, lat/long)	40.21837416, -76.25550583
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Clay Township	Protect Snyder Mill to the 0.2% annual chance flood level.
Action Number:	
ClyT-2	
Location (address, lat/long)	40.1830288, -76.26404353
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Clay Township	Protect Lincoln Mill to the 0.2% annual chance flood level.
Action Number:	
ClyT-3	
Location (address, lat/long)	40.20057985, -76.24433365
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Clay Township	Protect Middle Creek Dam to the 0.2% annual chance flood level.
Action Number:	
ClyT-4	
Location (address, lat/long)	40.26638889, -76.23777778
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Clay Township	Protect Hiram Erb House to the 0.2% annual chance flood level.
Action Number:	
ClyT-5	
Location (address, lat/long)	40.21851325, -76.25473365
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Clay Township	The Municipal Engineer will work with the Pennsylvania Game Commission to complete an engineering study of Middle Creek Dam. The Township will also request information and input from its Public Works department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the Pennsylvania Game Commission will pursue funding support, permit approval from PADEP, and implement the cost-effective measures.
Action Number:	
ClyT-6	
Location (address, lat/long)	Middle Creek Dam
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Dam Failure; Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA BRIC, HHPD
Timeline	Short
Lead Agency/Department	Pennsylvania Game Commission
Support Agency(ies)/ Department(s)	County Engineer, County EMA, PADEP, Municipal Engineer
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Colerain Township	Protect White Rock Forge Bridge to the 0.2% annual chance flood level.
Action Number:	
ColT-1	
Location (address, lat/long)	39.82469119, -76.09001938
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Colerain Township	There are several culverts in the Township which are undersized or deteriorating. The Township will apply for various grants to address these culverts.
Action Number:	
ColT-2	
Location (address, lat/long)	Multiple Locations
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Colerain Township	Reinforce or replace the Wesley Road Bridge.
Action Number:	
ColT-3	
Location (address, lat/long)	Wesley Road Bridge
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams; Transportation Accident
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA BRIC, HMGP; Operating Budget
Timeline	Long
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Colerain Township **Action Number:** ColT-4	Work to create an outreach program focused on expanding community networks to make the Township population aware of events and incidents, especially those who may not have access to internet and phones.
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Columbia Borough	Install a backup generator that can power the entire Municipal Building.
Action Number:	
ColB-1	
Location (address, lat/long)	40.031885, -76.502226
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Utility Interruption
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM; RACP
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Columbia Borough	Protect Robert Barber House to the 0.2% annual chance flood level.
Action Number:	
ColB-2	
Location (address, lat/long)	40.0271955, -76.49946855
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Columbia Borough	Protect Old Columbia-Wrightsville Bridge to the 0.2% annual chance flood level.
Action Number:	
ColB-3	
Location (address, lat/long)	40.03118028, -76.50918519
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Columbia Borough	During future updates of Borough ordinances, regulations, plans, codes, and other planning and regulatory capabilities, the Borough will integrate hazard mitigation principles.
Action Number:	
ColB-4	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Borough Administration
Support Agency(ies)/ Department(s)	Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Columbia Borough	Install a backup generator that can power each school district assembly area.
Action Number:	
ColB-5	
Location (address, lat/long)	School District Assembly Area
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Utility Interruption
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; RACP; Annual Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Columbia Borough	Seek funding opportunities to train staff and community leaders on how to apply for grants, general emergency resources, and where equipment can be purchased from.
Action Number:	
ColB-6	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	HSPG; EMPG; Annual Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	Borough Administration
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Columbia Borough	Several areas throughout the Borough have a lack of proper drainage during heavy rain. Investigate feasible, cost-effective flood mitigation options, including stormwater runoff systems.
Action Number:	
ColB-7	
Location (address, lat/long)	Multiple Locations
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Columbia Borough	Pursue funding to support the elevation or acquisition of private residencies which have flooded repetitively.
Action Number:	
ColB-8	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMGP, BRIC, FMA; Homeowners; Annual Budget
Timeline	Short
Lead Agency/Department	FPA
Support Agency(ies)/ Department(s)	Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Columbia Borough	Perform a geological study of the bedrock within the Borough to assess and identify areas which are susceptible to sinkholes.
Action Number:	
ColB-9	
Location (address, lat/long)	Multiple Locations
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Subsidence, Sinkhole
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA BRIC; Annual Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Columbia Borough	Identify and advertise warming and cooling shelters.
Action Number:	
ColB-10	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Winter Storm
Priority (High, Medium, Low)	Low
Estimated Cost	Low
Potential Funding Streams	Annual Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	Borough Administration
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Columbia Borough	Initiate a campaign to encourage Borough residents to sign up for public safety alerts.
Action Number:	
ColB-11	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Annual Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	Borough Administration
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Columbia Borough	Purchase needed emergency equipment.
Action Number:	
ColB-12	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	HSPG; EMPG; Annual Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	Borough Administration
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Conestoga Township	Protect the Big and Little Indian Rock to the 0.2% annual chance flood level.
Action Number:	
ConT-1	
Location (address, lat/long)	39.91401226, -76.3823608
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Conestoga Township	Protect the Colemanville Bridge to the 0.2% annual chance flood level.
Action Number:	
ConT-2	
Location (address, lat/long)	39.89894788, -76.34241597
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Conestoga Township	Protect the Conestoga Canal Lock to the 0.2% annual chance flood level.
Action Number:	
ConT-3	
Location (address, lat/long)	39.93923069, -76.38685271
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Conestoga Township	Protect the Safe Harbor Iron Works Site to the 0.2% annual chance flood level.
Action Number:	
ConT-4	
Location (address, lat/long)	39.93591763, -76.38566643
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Conestoga Township	Protect the Rock Hill Tavern to the 0.2% annual chance flood level.
Action Number:	
ConT-5	
Location (address, lat/long)	39.9614617, -76.36424985
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Conestoga Township	Protect the Daniel and Elizabeth Good Mill to the 0.2% annual chance flood level.
Action Number:	
ConT-6	
Location (address, lat/long)	39.93491449, -76.32373975
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Conestoga Township	Protect the Benjamin and Susanna Old Slaymaker Lodge/Yordy to the 0.2% annual chance flood level.
Action Number:	
ConT-7	
Location (address, lat/long)	39.98204378, -76.34758084
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Conestoga Township	Assess flood damage on Stone Hill Road, Green Hill Road, and Boy Scout Road and identify feasible, cost-effective measures to improve conditions. Develop a long-term plan for erosions following heavy rain storms along the identified roadways.
Action Number:	
ConT-8	
Location (address, lat/long)	Stone Hill Road, Green Hill Road, and Boy Scout Road
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Conoy Township	Protect the Brenneman Mill to the 0.2% annual chance flood level.
Action Number:	
CnyT-1	
Location (address, lat/long)	40.08790834, -76.64667757
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Denver Borough	Denver Beer Distributor Relocation - The Denver Beer Distributor is located at 4 Main Street, Denver, PA, in adjacent to the Cocalico Creek. During heavy rain and storm events, the business has faced repetitive loss due to flooding and is looking to relocate outside of this flood-prone area and to another location on Main Street in Denver Borough.
Action Number:	
DenB-1	
Location (address, lat/long)	40.228408, -76.132622
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	Denver Beer Distributor
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Denver Borough	Protect Filtration #3 to the 0.2% annual chance flood level.
Action Number:	
DenB-2	
Location (address, lat/long)	40.235745, -76.142786
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Denver Borough	Protect the Eberly Dam to the 0.2% annual chance flood level.
Action Number:	
DenB-3	
Location (address, lat/long)	40.22833333, -76.135
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Denver Borough	Protect the Henry Schein Facility to the 0.2% annual chance flood level.
Action Number:	
DenB-4	
Location (address, lat/long)	40.22833, -76.13278
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Denver Borough	Protect the Kalas Manufacturing Facility to the 0.2% annual chance flood level.
Action Number:	
DenB-5	
Location (address, lat/long)	40.229197, -76.132497
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Denver Borough	Protect Ryder Transportation to the 0.2% annual chance flood level.
Action Number:	
DenB-6	
Location (address, lat/long)	40.23, -76.14
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC, FMA; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Denver Borough	Develop and implement a proactive multi-dimensional training program including representatives from the Borough, Fire Department, Police Department, and EMS
Action Number:	
DenB-7	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	EMPG; HSGP; Annual Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	Borough Administration, FD, PD, EMS
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Denver Borough	Identify capacity and needs for emergency generators at the Municipal Building, Public Works, and Well #4. Apply for grants and appropriate funding where possible. After purchase, install and maintain generators.
Action Number:	
DenB-8	
Location (address, lat/long)	Municipal Building, Public Works, and Well #4
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams; Tornado/Windstorm; Utility Interruption; Winter Storm; Cyber Incident
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; RACP; Annual Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Denver Borough	Install a lining or excavate and replace metal stormwater pipes in the Snyder Acres Development and where applicable elsewhere in the Borough. These deteriorating pipes have caused roadway damages, sinkholes, and property issues in the Borough.
Action Number:	
DenB-9	
Location (address, lat/long)	Multiple Locations
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Denver Borough **Action Number:**	Perform streambank restoration activities and riparian buffer improvements in Denver Memorial Park.
DenB-10	
Location (address, lat/long)	Denver Memorial Park
Mitigation Technique Category	Natural Systems Protection (NSP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Denver Borough	Work with PennDOT to replace the existing Weaver Road Bridge.
Action Number:	
DenB-11	
Location (address, lat/long)	Weaver Road Bridge
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	PennDOT; FEMA BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	PennDOT
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Denver Borough	Develop partnerships with County, State, and Non-profit partners to ensure resources and connections are made to quickly mobilize in the event of a large-scale event or incident.
Action Number:	
DenB-12	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	Borough Administration
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Denver Borough	Educate residential and commercial property owners updated concerning hazards and potential resources to meet any challenges. A focus area will be the property owners along Denver Memorial Park, Little Cocalico Creek, and Cocalico Creek.
Action Number:	
DenB-13	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	FPA
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Denver Borough	Address feasibility of water system connection with neighboring public water systems to reduce burdens in the event of a drought or utility outage.
Action Number:	
DenB-14	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Drought, Winter Storm, Utility Interruption
Priority (High, Medium, Low)	Low
Estimated Cost	Medium
Potential Funding Streams	Utility Companies; Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Utility companies; neighboring municipalities
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Denver Borough	Investigate proactive actions to address infiltration and inflow areas in the sewer system to mitigate potential issues.
Action Number:	
DenB-15	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	Medium
Potential Funding Streams	Utility Companies; Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Utility companies
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Drumore Township	Protect the Muddy Run Power Plant to the 0.2% annual chance flood level.
Action Number:	
DruT-1	
Location (address, lat/long)	39.80762094, -76.29944705
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Drumore Township	Protect the Muddy Run Dam to the 0.2% annual chance flood level.
Action Number:	
DruT-2	
Location (address, lat/long)	39.84055556, -76.28333333
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Drumore Township	Protect the Drumore Mill to the 0.2% annual chance flood level.
Action Number:	
DruT-3	
Location (address, lat/long)	39.79383301, -76.25910256
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Earl Township	Relocate businesses along US-322 west of Martindale Road.
Action Number:	
EarlT-1	
Location (address, lat/long)	40.154495, -76.129176
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	Board of Supervisors
Support Agency(ies)/ Department(s)	
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Earl Township	Protect the Conestoga Bridge No. 5 to the 0.2% annual chance flood level.
Action Number:	
EarlT-2	
Location (address, lat/long)	40.15067097, -76.10380737
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Earl Township	Protect the Conestoga Creek Bridge No. 6 to the 0.2% annual chance flood level.
Action Number:	
EarlT-3	
Location (address, lat/long)	40.14571669, -76.07776586
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Earl Township	Protect the White Oak Ice Co. to the 0.2% annual chance flood level.
Action Number:	
EarlT-4	
Location (address, lat/long)	40.146015, -76.079015
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Earl Township	Protect the Adam Schreiner House to the 0.2% annual chance flood level.
Action Number:	
EarlT-5	
Location (address, lat/long)	40.15378772, -76.12848761
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Earl Township	The Township will update or create a dam failure response plan as part of the emergency management plans. This plan will outline clear evacuation procedures and flood zone mapping. To enhance response capabilities, training for staff on dam breach protocols and public education on emergency evacuation routes will be implemented.
Action Number:	
EarlT-6	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Dam Failure; Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	FEMA HMGP, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	FPA, Dam Owners
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Earl Township	The Township will develop a drought emergency response plan that includes water rationing protocols and prioritizing water distribution to critical infrastructure. Staff training will focus on water conservation practices and emergency water distribution techniques.
Action Number:	
EarlT-7	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Drought
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	FEMA HMGP, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	Utility Providers
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Earl Township	The Township will integrate earthquake preparedness into the emergency management plan and provide training for staff to handle post-earthquake situations, such as search and rescue operations and medical triage. The community will be educated on how to prepare their homes and businesses for earthquakes.
Action Number:	
EarlT-8	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Earthquake
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	FEMA HMGP, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Earl Township	The township office manager and roadmaster will coordinate with the township engineer to assess the power needs of each building to determine the appropriate generator size. The generator will be installed at the Township and Road Maintenance buildings. The Road Maintenance Department will be responsible for the ongoing maintenance and testing of the generators, ensuring they are fully operational when needed.
Action Number:	
EarlT-9	
Location (address, lat/long)	Township and Road Maintenance buildings
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Utility Interruption, Flood/Flash Flood/Ice Jams, Cyber Incidents, Tornado/Windstorm, Hailstorms, Transportation Accidents, Terrorism, Hazardous Materials Releases
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMGP, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Township Manager
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Earl Township **Action Number:** EarlT-10	The Township will work with an engineer to address both the flooding along Mill Road and the overall stormwater management issues. As part of this solution, the culvert along Mill Road will be replaced with a larger and more efficient box culvert to accommodate increased water flow and prevent future blockages or overflow. This will stabilize the streambank adjacent to Mill Road to prevent further erosion caused by high water levels during storms. Improvements to drainage in the adjacent agricultural pasture will also be made to reduce runoff into the road. To address the larger issue, stormwater conveyance will be enhanced from existing outfalls beneath Mill Road to the stream, improving the overall drainage capacity of the area and reducing the risk of flooding. Future improvements will include the road being repaved and its stormwater infrastructure will be upgraded to ensure it can handle future stormwater runoff more effectively, mitigating flooding in the long term.
Location (address, lat/long)	Mill Road, other locations as identified
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood/Flash Flood/Ice Jams, Winter Storm, Subsidence/Sinkholes
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMGP, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	DPW, FPA
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Earl Township	The Township will develop a Repetitive Loss Mitigation Plan. The plan will include an analysis of each affected property, considering factors such as flood history, the cost of repairs, potential elevation or buyout options, and the long-term impacts of mitigation. Based on this analysis, the Township will identify high-priority properties for elevation or buyout through FEMA's Hazard Mitigation Assistance (HMA) programs. For properties that are suitable for elevation, the Township will work with property owners and engineers to develop elevation plans to raise structures above flood levels. For properties that are prone to frequent flooding and cannot be effectively elevated, the Township will pursue buyouts, enabling property owners to relocate to safer areas, with the added benefit of reducing the risk of future flood claims.
Action Number:	
EarlT-11	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Flood/Flash Flood/Ice Jams, Winter Storm
Priority (High, Medium, Low)	Low
Estimated Cost	Medium
Potential Funding Streams	FEMA HMGP, BRIC, FMA; Operating Budget
Timeline	Short
Lead Agency/Department	FPA
Support Agency(ies)/ Department(s)	Municipal EMC, Planning Board
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Earl Township	The Township will evaluate options for elevating or floodproofing critical buildings to prevent damage during floods. Infrastructure such as water treatment plants, and sewer systems will be hardened with flood barriers and fire-resistant materials, especially in areas prone to wildfires and flooding. Additionally, key transportation routes will be upgraded with improved drainage systems to ensure accessibility during emergencies. Backup power systems, such as generators, will be installed to maintain service during utility interruptions. Collaboration with utility companies will also focus on improving gas pipeline safety to prevent damage during extreme weather or seismic events. These measures will enhance the resilience of the Township's infrastructure, ensuring that essential services continue before, during, and after hazard events.
Action Number:	
EarlT-12	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams; Wildfire; Utility Interruption
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMGP, BRIC, FMA; Operating Budget
Timeline	Short
Lead Agency/Department	FPA
Support Agency(ies)/ Department(s)	Municipal EMC, Planning Board
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Earl Township	To better protect socially vulnerable populations, including the Amish community, the Township will implement tailored mitigation actions. These include developing outreach programs to communicate hazard preparedness through trusted community leaders, focusing on pandemic prevention, substance use disorder support, and invasive species management. Mobile vaccination clinics and health outreach teams will provide essential services to those with limited access to healthcare, particularly during pandemics. The Township will collaborate with local addiction treatment centers to offer mobile support for substance use disorder, and work with agricultural groups to manage invasive species. Additionally, a community-based transportation network will ensure that vulnerable populations can access medical care and emergency services during disasters. These actions will improve resilience and ensure that socially vulnerable groups are better protected from future hazards like pandemics, substance use, and invasive species, while also fostering greater community support and inclusion in disaster preparedness and recovery planning.
Action Number:	
EarlT-13	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	Pandemic and Infectious Disease; Substance use disorder; Invasive Species; Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	FEMA HMGP; Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	Local Community Groups
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Earl Township	The Township will develop outreach projects that target both the Amish community and the general public. For the Amish population, outreach will be conducted through community meetings, printed materials, and collaboration with local community leaders to ensure culturally relevant information is shared. These efforts will help increase awareness of local hazards, emergency procedures, and available resources in a way that aligns with their communication preferences. For the general public, the Township will launch a series of community-wide education campaigns focused on general preparedness, mitigation actions, and available assistance programs. These campaigns will utilize flyers, brochures, public service announcements, and town hall meetings to disseminate critical information. Additionally, the Township will offer workshops on disaster preparedness and emergency response. Local businesses, schools, and community centers will also serve as distribution points for these materials, ensuring broad access. These outreach projects will ensure that all residents, including those from underserved populations, receive the necessary information to stay informed, prepared, and resilient in the face of future hazards.
Action Number:	
EarlT-14	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Haazrds
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	FEMA HMGP; Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	Local Community Groups
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Earl Township	The nuclear incident response plan will be updated to include evacuation routes, shelter-in-place procedures, radiation exposure protocols, and the acquisition of radiation detection equipment and protective gear. Staff will be trained on radiation response and conduct public education on nuclear safety. For gas and liquid pipelines, the Township collaborate with operators to enhance safety inspections, leak detection, and evacuation procedures, alongside providing staff training. Finally, the wildfire response plan will focus on creating firebreaks, improving evacuation routes, while training staff in wildfire suppression and emergency response. These actions will significantly improve the community's preparedness and ability to respond effectively to these hazards.
Action Number:	
EarlT-15	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Nuclear Incident, Gas and Liquid Pipelines, Radon Exposure, Wildfire
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	HSGP; EMPG; HMEP; Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	FD, PD, EMS
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Cocalico Township	Protect the District Justice Office 1 to the 0.2% annual chance flood level.
Action Number:	
ECT-1	
Location (address, lat/long)	2 Cardinal Dr.; 40.215337, -76.127105
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Cocalico Township	Protect the Reamstown EMS facility to the 0.2% annual chance flood level.
Action Number:	
ECT-2	
Location (address, lat/long)	12 W Church St; 40.212216, -76.124908
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Cocalico Township	Protect Well #8 to the 0.2% annual chance flood level.
Action Number:	
ECT-3	
Location (address, lat/long)	40.224746, -76.104253
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Cocalico Township	Replace the Dogwood Drive bridge over Fry's Run with one with a larger opening.
Action Number:	
ECT-4	
Location (address, lat/long)	40.250766, -76.101033
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Long
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Cocalico Township	Replace the Miller Road bridge over the Little Cocalico Creek with one with a larger opening.
Action Number:	
ECT-5	
Location (address, lat/long)	40.244635, -76.123329
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Long
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Cocalico Township	Replace the Reinholds Road bridge over Fry's Run with one with a larger opening.
Action Number:	
ECT-6	
Location (address, lat/long)	40.242812, -76.123136
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Long
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Cocalico Township	Replace the Smokestown Road bridge over Fry's Run with one with a larger opening.
Action Number:	
ECT-7	
Location (address, lat/long)	40.244089, -76.113576
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Cocalico Township	Replace the Stony Run culvert under Hill Road with one with a larger opening.
Action Number:	
ECT-8	
Location (address, lat/long)	40.228640, -76.094688
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Cocalico Township	Replace the White Oak Road bridge over Fry's Run with one with a larger opening.
Action Number:	
ECT-9	
Location (address, lat/long)	40.248015, -76.109131
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Long
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Cocalico Township	Protect the Bucher's Mill Covered Bridge facility to the 0.2% annual chance flood level.
Action Number:	
ECT-10	
Location (address, lat/long)	40.20801686, -76.1346676
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Cocalico Township	Protect the Lesher Knitting Mill facility to the 0.2% annual chance flood level.
Action Number:	
ECT-11	
Location (address, lat/long)	40.21777778, -76.12972222
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Cocalico Township	Invest in cyber insurance for the Township.
Action Number:	
ECT-12	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Cyber Incidents
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Township Administration
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Cocalico Township	Identify capacity and needs for emergency generators at the Public Works facility. Apply for grants and appropriate funding where possible. After purchase, install, and maintain the generator. Identify additional critical facilities in the Township in need of back-up power to maintain operations.
Action Number:	
ECT-13	
Location (address, lat/long)	Public Works Facility
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams; Tornado/Windstorm; Utility Interruption; Winter Storm; Cyber Incident
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; RACP; Annual Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
East Cocalico Township	Work to create an outreach program focused on expanding community networks to make the Township population aware of events and incidents.
Action Number:	
ECT-14	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
East Cocalico Township	Identify and address undersized or deteriorating culverts throughout the Township.
Action Number:	
ECT-15	
Location (address, lat/long)	Multiple Locations
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC, FMA; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Cocalico Township **Action Number:** ECT-16	The Township will pursue funding support to have a forester assess trees, complete deed searches to verify Township right of way in targeted areas, and then have the tree removal completed by qualified personnel. Implement, review, and enforce municipal policies and programs to prevent trees from threatening lives and impacting power availability/interruption in conjunction with property owners and utility companies.
Location (address, lat/long)	N/A
Mitigation Technique Category	Natural Systems Protection (NSP)
Hazard(s) Addressed	Utility Interruption
Priority (High, Medium, Low)	Low
Estimated Cost	Medium
Potential Funding Streams	Operating Budget; Utility Companies
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Utility Companies, Property Owners
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Cocalico Township	Plant native vegetation and plants to combat invasive species and potential hinder wildfire fuel.
Action Number:	
ECT-17	
Location (address, lat/long)	N/A
Mitigation Technique Category	Natural Systems Protection (NSP)
Hazard(s) Addressed	Invasive Species, Wildfire
Priority (High, Medium, Low)	Low
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Cocalico Township	Encourage property owners living in older housing units to install a radon detector.
Action Number:	
ECT-18	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	Radon Exposure
Priority (High, Medium, Low)	Low
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	FD
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Cocalico Township	Review and revise, where applicable, existing codes, policies and regulations pertaining to land development to restrict development in hazard areas including, but not limited to, geology connected to sinkholes, flood-prone locations, wildfire interfaces, and steep slopes.
Action Number:	
ECT-19	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	All Natural Hazards
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Township Administration
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Donegal Township	Protect the Share's Mill Complex to the 0.2% annual chance flood level.
Action Number:	
EDT-1	
Location (address, lat/long)	40.07943221, -76.53452614
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
East Donegal Township	Protect AT&T Cable Substation to the 0.2% annual chance flood level.
Action Number:	
EDT-2	
Location (address, lat/long)	40.0707794, -76.52603999
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Donegal Township	Protect Well #33 to the 0.2% annual chance flood level.
Action Number:	
EDT-3	
Location (address, lat/long)	40.110235, -76.543092
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Donegal Township	Protect Well #79 to the 0.2% annual chance flood level.
Action Number:	
EDT-4	
Location (address, lat/long)	40.110145, -76.543137
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Donegal Township	Protect Donegal Mill to the 0.2% annual chance flood level.
Action Number:	
EDT-5	
Location (address, lat/long)	40.05743617, -76.52527908
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Donegal Township	Develop and implement a proactive multi-dimensional training program including representatives from the Borough, Fire Department, Police Department, and EMS
Action Number:	
EDT-6	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	EMPG; HSGP; Annual Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	Township Administration, FD, PD, EMS
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Donegal Township	Produce education and outreach materials for all residents. Share this information via social media, newsletters, brochures, and other methods. Post this information in local gathering locations such as community centers, libraries, and churches. Ensure the materials produced are available in English, Spanish, and other primary spoken languages.
Action Number:	
EDT-7	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	FEMA HMPG, BRIC; Annual Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	Township Administration, FD, PD, EMS
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Earl Township	Shirks Run Diversion - Work with landowners to reduce the possibility of flooding damage in an area east of Shirks Run at the Route 322 and Route 23 intersection.
Action Number:	
EET-1	
Location (address, lat/long)	Shirks Run Diversion - Work with landowners to reduce the possibility of flooding damage in an area east of Shirks Run at the Route 322 and Route 23 intersection.
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget *Project is currently not eligible for FEMA mitigation funding. The municipality did not participate in the planning process.*
Timeline	Short
Lead Agency/Department	Emergency EMC
Support Agency(ies)/ Department(s)	PA DEP
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Earl Township	Work with PENNDOT to realign and install a traffic light at the intersection of US-322 and PA-897.
Action Number:	
EET-2	
Location (address, lat/long)	40.112890, -76.028637
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Transportation Accident
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	Operating Budget *Project is currently not eligible for FEMA mitigation funding. The municipality did not participate in the planning process.*
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	PENNDOT
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Earl Township	Work with PENNDOT to realign the intersection of Routes 23 and 897.
Action Number:	
EET-3	
Location (address, lat/long)	40.121811, -76.029028
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Transportation Accident
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	Operating Budget *Project is currently not eligible for FEMA mitigation funding. The municipality did not participate in the planning process.*
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	PENNDOT
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Earl Township	Protect Conestoga Bridge No. 4 to the 0.2% annual chance flood level.
Action Number:	
EET-4	
Location (address, lat/long)	40.1399845, -76.04812357
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget *Project is currently not eligible for FEMA mitigation funding. The municipality did not participate in the planning process.*
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Earl Township	Protect the Elliot Tract House to the 0.2% annual chance flood level.
Action Number:	
EET-5	
Location (address, lat/long)	40.11015876, -76.01073389
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget *Project is currently not eligible for FEMA mitigation funding. The municipality did not participate in the planning process.*
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Earl Township	Protect the Frogtown/Goodville Mill to the 0.2% annual chance flood level.
Action Number:	
EET-6	
Location (address, lat/long)	40.12102567, -76.01800302
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget *Project is currently not eligible for FEMA mitigation funding. The municipality did not participate in the planning process.*
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Earl Township	Protect the Roller Mill to the 0.2% annual chance flood level.
Action Number:	
EET-7	
Location (address, lat/long)	40.14333333, -76.025
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; Operating Budget *Project is currently not eligible for FEMA mitigation funding. The municipality did not participate in the planning process.*
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Earl Township	Protect the Christian Weaver House to the 0.2% annual chance flood level.
Action Number:	
EET-8	
Location (address, lat/long)	40.1426484, -76.03175548
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget *Project is currently not eligible for FEMA mitigation funding. The municipality did not participate in the planning process.*
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Earl Township	Protect the Francis Weaver House to the 0.2% annual chance flood level.
Action Number:	
EET-9	
Location (address, lat/long)	40.13884561, -76.05996371
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget *Project is currently not eligible for FEMA mitigation funding. The municipality did not participate in the planning process.*
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Earl Township	Protect the Henry Martin House to the 0.2% annual chance flood level.
Action Number:	
EET-10	
Location (address, lat/long)	40.14132134, -76.03166481
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget *Project is currently not eligible for FEMA mitigation funding. The municipality did not participate in the planning process.*
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Earl Township	Protect the Oberholtzer Mill to the 0.2% annual chance flood level.
Action Number:	
EET-11	
Location (address, lat/long)	40.14471035, -76.02010791
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget *Project is currently not eligible for FEMA mitigation funding. The municipality did not participate in the planning process.*
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Earl Township **Action Number:** EET-12	The Municipal Engineer will work with Jacob and Evelyn King to complete an engineering study of New Holland Reservoir. The Township will also request information and input from its Road department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and Jacob and Evelyn King will pursue funding support, permit approval from PADEP, and implement the cost-effective measures.
Location (address, lat/long)	New Holland Reservoir
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Dam Failure; Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA BRIC, HHPD *Project is currently not eligible for FEMA mitigation funding. The municipality did not participate in the planning process.*
Timeline	Short
Lead Agency/Department	Jacob and Evelyn King
Support Agency(ies)/ Department(s)	County Engineer, County EMA, PADEP, Municipal Engineer
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Hempfield Township	Culvert Replacement - Install detention basins on the Township-owned property next to Four Seasons Golf Course to help reduce flooding through the Swarr Run. Replace old and undersized culverts along the Swarr Run located at Church Street, Snapper Dam Road, and Nolt Road. The three roads are subject to frequent flooding.
Action Number:	
EHT-1	
Location (address, lat/long)	
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Hempfield Township	Install detention basins on the Township-owned property next to Four Seasons Golf Course to help reduce flooding through the Swarr Run.
Action Number:	
EHT-2	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Hempfield Township	Replace old and undersized culverts along the Swarr Run located at Church Street.
Action Number:	
EHT-3	
Location (address, lat/long)	Church Street
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Hempfield Township	Replace old and undersized culverts along the Swarr Run located at Nolt Road.
Action Number:	
EHT-4	
Location (address, lat/long)	Nolt Road
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Hempfield Township	Replace old and undersized culverts along the Swarr Run located at Snapper Dam Road.
Action Number:	
EHT-5	
Location (address, lat/long)	Snapper Dam Road
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Hempfield Township	Protect Brubaker Run Detention to the 0.2% annual chance flood level.
Action Number:	
EHT-6	
Location (address, lat/long)	40.04638889, -76.38444444
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
East Hempfield Township	Protect Chickies Roller Mill to the 0.2% annual chance flood level.
Action Number:	
EHT-7	
Location (address, lat/long)	40.10833333, -76.44333333
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
East Hempfield Township	Protect Landis Mill Bridge to the 0.2% annual chance flood level.
Action Number:	
EHT-8	
Location (address, lat/long)	40.06800945, -76.3448893
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
East Hempfield Township	Protect Benjamin Musser House to the 0.2% annual chance flood level.
Action Number:	
EHT-9	
Location (address, lat/long)	40.10894506, -76.42911637
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
East Hempfield Township	Protect Shenk House to the 0.2% annual chance flood level.
Action Number:	
EHT-10	
Location (address, lat/long)	40.11589274, -76.42429838
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Lampeter Township	Backup generator – Purchase 10 more generators for use along Route 30 and Route 340 to make them functional emergency routes.
Action Number:	
ELT-1	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Transportation Accident; Utility Interruption
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM; Capital Improvements Budget; RACP
Timeline	Long
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Lampeter Township	Backup generator – Install backup generators in two fire stations that are not yet equipped with backup power.
Action Number:	
ELT-2	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Utility Interruption
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM; RACP
Timeline	Long
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Lampeter Township	Identify mitigation or structural projects to reduce vulnerability to stormwater flooding incidents along Millcross Road.
Action Number:	
ELT-3	
Location (address, lat/long)	Millcross Road
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Long
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Lampeter Township	Improve the design of the intersections at Oakview, Rte. 462, and Millstream along Rte. 30.
Action Number:	
ELT-4	
Location (address, lat/long)	Oakview, Rte. 462, and Millstream along Rte. 30
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Transportation Accident
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	TIP; PENNDOT
Timeline	Long
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	PENNDOT, LC MPO
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Lampeter Township	Install stormwater management infrastructure at Gibson's Park at Nolt Mill.
Action Number:	
ELT-5	
Location (address, lat/long)	Gibson's Park at Nolt Mill
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Long
Lead Agency/Department	Parks and Recreation
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Lampeter Township	Investigate retrofitting or other flood hazard mitigation measure for Oaks 1 Pump Station.
Action Number:	
ELT-6	
Location (address, lat/long)	Oaks 1 Pump Station
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	Operating Budget
Timeline	Long
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
East Lampeter Township	Investigate retrofitting or other flood hazard mitigation measure for properties along Hale Drive.
Action Number:	
ELT-7	
Location (address, lat/long)	Hale Drive
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	Medium
Potential Funding Streams	Operating Budget
Timeline	Long
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Lampeter Township	Investigate retrofitting or other flood hazard mitigation measure for properties along the south side of Millstream Road between Gridley and Strasburg Pike.
Action Number:	
ELT-8	
Location (address, lat/long)	Millstream Road between Gridley and Strasburg Pike
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	Medium
Potential Funding Streams	Operating Budget
Timeline	Long
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Lampeter Township	Investigate the removal of dam structures at Flory Park.
Action Number:	
ELT-9	
Location (address, lat/long)	Flory Park
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Dam Failure; Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	PA DEP
Timeline	Long
Lead Agency/Department	Parks and Recreation
Support Agency(ies)/ Department(s)	DPW, DEP, DCED, Mill Creek Association, and Property Owners
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Lampeter Township	Investigate the removal of dam structures at Gibson's Park at Nolt Mill.
Action Number:	
ELT-10	
Location (address, lat/long)	Gibson's Park at Nolt Mill
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Dam Failure; Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	PA DEP
Timeline	Long
Lead Agency/Department	Parks and Recreation
Support Agency(ies)/ Department(s)	DPW, DEP, DCED, Mill Creek Association, and Property Owners
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Lampeter Township	Protect Lancaster Mennonite High School to the 0.2% annual chance flood level.
Action Number:	
ELT-11	
Location (address, lat/long)	40.028372, -76.226243
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM; Operating Budget
Timeline	Long
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Lampeter Township	Protect Wastewater Pump #97 to the 0.2% annual chance flood level.
Action Number:	
ELT-12	
Location (address, lat/long)	40.059222, -76.252489
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Long
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Lampeter Township	Protect Wastewater Pump #98 to the 0.2% annual chance flood level.
Action Number:	
ELT-13	
Location (address, lat/long)	40.027535, -76.242699
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Long
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Lampeter Township	Upgrade stormwater management at Flory Park.
Action Number:	
ELT-14	
Location (address, lat/long)	Flory Park
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Long
Lead Agency/Department	Parks and Recreation
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Lampeter Township	Upgrade stormwater management at Greenland near Flory Park entrance.
Action Number:	
ELT-15	
Location (address, lat/long)	Greenland near Flory Park entrance
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Long
Lead Agency/Department	Parks and Recreation
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Lampeter Township	Upgrade stormwater management at North Cherry Lane.
Action Number:	
ELT-16	
Location (address, lat/long)	North Cherry Lane
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Long
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Lampeter Township	Upgrade stormwater management at Susan Avenue.
Action Number:	
ELT-17	
Location (address, lat/long)	Susan Avenue
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Long
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Lampeter Township	Upgrade stormwater management at the northeast side properties along Strasburg Pike.
Action Number:	
ELT-18	
Location (address, lat/long)	Strasburg Pike
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Long
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Lampeter Township	Upgrade the stormwater management system along Greenfield Road at Amtrak.
Action Number:	
ELT-19	
Location (address, lat/long)	along Greenfield Road at Amtrak
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Long
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Lampeter Township	Upgrade the stormwater management system at Soudersburg Road at the pump station.
Action Number:	
ELT-20	
Location (address, lat/long)	Soudersburg Road
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Long
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Lampeter Township	Protect Binkley or Graff Mill to the 0.2% annual chance flood level.
Action Number:	
ELT-21	
Location (address, lat/long)	40.02589222, -76.24223165
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
East Lampeter Township	Protect Donnelley Financial Solutions to the 0.2% annual chance flood level.
Action Number:	
ELT-22	
Location (address, lat/long)	40.0403, -76.1926
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Lampeter Township	Protect Engineered Valves, LLC to the 0.2% annual chance flood level.
Action Number:	
ELT-23	
Location (address, lat/long)	40.023, -76.233
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Lampeter Township	Protect Gibbons Mill to the 0.2% annual chance flood level.
Action Number:	
ELT-24	
Location (address, lat/long)	40.03943099, -76.19459033
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
East Lampeter Township	Protect J. Walter Miller Company to the 0.2% annual chance flood level.
Action Number:	
ELT-25	
Location (address, lat/long)	40.0235, -76.1748
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
East Lampeter Township	Protect J.L. Clark, LLC to the 0.2% annual chance flood level.
Action Number:	
ELT-26	
Location (address, lat/long)	40.0239, -76.1752
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
East Lampeter Township	Protect Lancaster Terminal to the 0.2% annual chance flood level.
Action Number:	
ELT-27	
Location (address, lat/long)	40.0359, -76.195
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
East Lampeter Township	Protect Shober's Paper Mill to the 0.2% annual chance flood level.
Action Number:	
ELT-28	
Location (address, lat/long)	40.07047681, -76.26151026
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
East Lampeter Township	Protect USPS Postal Service Lancaster to the 0.2% annual chance flood level.
Action Number:	
ELT-29	
Location (address, lat/long)	40.033, -76.2015
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
East Lampeter Township	Protect Willow Hill Bridge to the 0.2% annual chance flood level.
Action Number:	
ELT-30	
Location (address, lat/long)	40.02440476, -76.20150833
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Lampeter Township	Identify, design, and install stormwater management initiatives to reduce potential flood effects, particularly on Millcross Road, North Cherry Lane, Susan Avenue, Strasburg Pike, and Soudersburg Road.
Action Number:	
ELT-31	
Location (address, lat/long)	Multiple Locations
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Engineer
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Lampeter Township	Work with PA DEP and local partners to determine the cost benefit analysis of removal of the dams at Gibbons Park, Nolt Mill, and Flory Park.
Action Number:	
ELT-32	
Location (address, lat/long)	Gibbons Park, Nolt Mill, and Flory Park
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams; Dam Failure
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Engineer
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
East Lampeter Township	Investigate possibilities to reduce stormwater flow into the Oaks 1 Pump Station and potential periodic shut downs of the sewer pump station due to excessive stormwater flow.
Action Number:	
ELT-33	
Location (address, lat/long)	Oaks 1 Pump Station
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Engineer
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Petersburg Borough	Protect Filtration #5 to the 0.2% annual chance flood level.
Action Number:	
EPB-1	
Location (address, lat/long)	40.107393, -76.338146
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Petersburg Borough	Develop minimum training requirements for EOC Staffing.
Action Number:	
EPB-2	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	EMPG; Annual Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Petersburg Borough	Develop plans to host an exercise to address training deficits.
Action Number:	
EPB-3	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	EMPG; Annual Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Petersburg Borough	Create and develop annexes to the Borough's EOP (i.e. debris management) in conjunction with the Borough Staff, public works.
Action Number:	
EPB-4	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	EMPG; Annual Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	Borough Administration, DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Petersburg Borough	Identify capacity and needs for emergency generators and transfer switches at the DPW Maintenance Shop and City Interconnect. Apply for grants and appropriate funding where possible. After purchase, install and maintain generators.
Action Number:	
EPB-5	
Location (address, lat/long)	DPW Maintenance Shop and City Interconnect
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams; Tornado/Windstorm; Utility Interruption; Winter Storm; Cyber Incident
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; RACP; Annual Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
East Petersburg Borough	Increase pipe capacity at Outfall OFA000101 discharge on Graystone Road.
Action Number:	
EPB-6	
Location (address, lat/long)	Graystone Road
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; Annual Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Petersburg Borough	Install fencing and perimeter cameras to provide more security at the Borough's Water facility.
Action Number:	
EPB-7	
Location (address, lat/long)	Borough's Water Facility
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Wildfire
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA BRIC; Annual Budget
Timeline	Short
Lead Agency/Department	Facility manager
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Petersburg Borough	In tandem with County officials, explore options for an alternate means for communication in an emergency. Social media is the primary use of communication.
Action Number:	
EPB-8	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Annual Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	Borough Administration
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
East Petersburg Borough	Connect with facilities that host children during the day and work to develop plans and build resources for the families in case of any hazard.
Action Number:	
EPB-9	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Annual Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Petersburg Borough	Produce education and outreach materials for all residents. Share this information via social media, newsletters, brochures, and other methods. Post this information in local gathering locations such as community centers, libraries, and churches. Ensure the materials produced are available in English, Spanish, and other primary spoken languages.
Action Number:	
EPB-10	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	FEMA HMPG, BRIC; Annual Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	Borough Administration
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Eden Township	Protect Pennsylvania Railroad Tunnel to the 0.2% annual chance flood level.
Action Number:	
EdT-1	
Location (address, lat/long)	39.90257493, -76.12406074
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Eden Township	Move the existing EOC (489 Stony Hill Road) to the new state-of-the-art municipal building. The new building will feature an Emergency Operations Center (EOC), a backup generator, and incorporate comprehensive upgrades, including ADA-compliant accessibility, advanced electrical and HVAC systems, and cutting-edge technology infrastructure. Additionally, the project will integrate sustainable stormwater management solutions, such as a green parking lot and vegetated bioswales, to reduce runoff and support environmental sustainability.
Action Number:	
EdT-2	
Location (address, lat/long)	Multiple Locations
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	HSGP; EOC Grant; Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	Township Administration
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Eden Township	In partnership with local fire chiefs, establish a comprehensive burn ordinance aimed at preventing and controlling air and water pollution. The ordinance will also grant the Township the authority to implement temporary burn bans during red flag warnings and other high-risk wildfire conditions.
Action Number:	
EdT-3	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Wildfire
Priority (High, Medium, Low)	Low
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	Fire Chief, Township Administration
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Eden Township	Coordinate with PennDOT to replace an old, inadequate drainpipe that runs underneath May Post Office Road at the intersection of Eden Road. The existing pipe contributes to water backups and flooding.
Action Number:	
EdT-4	
Location (address, lat/long)	May Post Office Road, Eden Road
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	PennDOT; FEMA HMGP, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	PennDOT
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Eden Township	Pave/Reprofile Eden Road from Groff Road to May Post Office Road (approximately .8 miles). These roads, which face impacts from severe weather, would be utilized should an evacuation be necessary due to an event at the Peach Bottom Power Plant.
Action Number:	
EdT-5	
Location (address, lat/long)	May Post Office Road, Eden Road, Groff Road
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood/Flash Flood/Ice Jams, Hailstorms, Tornado/Windstorm, Winter Storm, Nuclear Incidents, Transportation Accident
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	PennDOT; FEMA HMGP, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	PennDOT
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Eden Township	Arrange and conduct a complimentary Cybersecurity and Infrastructure Security Agency (CISA) evaluation for Township IT systems to identify vulnerabilities and enhance resilience against cyber threats, safeguarding critical infrastructure and sensitive data.
Action Number:	
EdT-6	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Cyber Incidents
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	FEMA BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	IT
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Eden Township	Coordinate with Lancaster Clean Water Partners to reduce the amount of nitrogen, phosphorus, and sediment in Eden Township waterways that are a part of the Chesapeake Bay Watershed.
Action Number:	
EdT-7	
Location (address, lat/long)	N/A
Mitigation Technique Category	Natural Systems Protection (NSP)
Hazard(s) Addressed	Hazardous Materials Releases
Priority (High, Medium, Low)	Low
Estimated Cost	Medium
Potential Funding Streams	FEMA HMGP, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	Lancaster Clean Water Partners
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Eden Township	Develop informational outreach initiatives to promote participation in and enhance recruitment for Bart FD and Quarryville FD
Action Number:	
EdT-8	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Annual Budget
Timeline	Short
Lead Agency/Department	Bart FD, Quarryville FD
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Eden Township	Purchase and install a radar-equipped speed sign in targeted areas to mitigate the risk of speeding and enhance road safety
Action Number:	
EdT-9	
Location (address, lat/long)	Multiple Locations
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam, Landslides
Priority (High, Medium, Low)	Low
Estimated Cost	Medium
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	PD
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Eden Township **Action Number:** EdT-10	Develop informational outreach initiatives on hazard risks and hazard mitigation for residents. A significant portion of the township population (48%) is Amish, who may have limited access to traditional hazard risk information, leaving them vulnerable to disasters. Informational outreach initiatives are needed to raise awareness about hazard risks and mitigation strategies to better protect all residents, especially those in underserved communities.
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	FEMA HMPG, BRIC; Annual Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	Township Administration
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Elizabeth Township	Work with utility companies to clear vegetation around power and communications lines.
Action Number:	
ElizT-1	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Utility Interruption
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Elizabeth Township	Protect Grube, Martin and Eliza Mill to the 0.2% annual chance flood level.
Action Number:	
ElizT-2	
Location (address, lat/long)	40.19760953, -76.2799477
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Elizabeth Township	Protect Hammer Creek Bridge to the 0.2% annual chance flood level.
Action Number:	
ElizT-3	
Location (address, lat/long)	40.19939544, -76.29141369
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Elizabeth Township	Ensure that during severe storms conditions are monitored, including roadways, water and flood gauges, and local reports are reviewed.
Action Number:	
ElizT-4	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Low
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	PD, FD
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Elizabeth Township	Educate the public on the functionality and use of the Regroup application. Encourage the public to sign up for emergency alerts and notifications.
Action Number:	
ElizT-5	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	County
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Elizabeth Township **Action Number:** ElizT-6	The Municipal Engineer will work with the Pennsylvania Fish and Boat Commission to complete an engineering study of Speedwell Forge Dam. The Township will also request information and input from its Public Works department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the Pennsylvania Fish and Boat Commission will pursue funding support, permit approval from PADEP, and implement the cost-effective measures.
Location (address, lat/long)	Speedwell Forge Dam
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Dam Failure; Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA BRIC, HHPD
Timeline	Short
Lead Agency/Department	Pennsylvania Fish and Boat Commission
Support Agency(ies)/ Department(s)	County Engineer, County EMA, PADEP, Municipal Engineer
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Elizabethtown Borough	Protect Reservoir #6 to the 0.2% annual chance flood level.
Action Number:	
ElizB-1	
Location (address, lat/long)	40.152752, -76.611807
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Elizabethtown Borough **Action Number:** ElizB-2	The Municipal Engineer will work with the Elizabethtown College to complete an engineering study of Lake Placida Dam. The Borough will also request information and input from its Public Works department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Borough and the Elizabethtown College will pursue funding support, permit approval from PADEP, and implement the cost-effective measures.
Location (address, lat/long)	Lake Placida Dam
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Dam Failure; Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA BRIC, HHPD
Timeline	Short
Lead Agency/Department	Elizabethtown College
Support Agency(ies)/ Department(s)	County Engineer, County EMA, PADEP, Municipal Engineer
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Ephrata Borough	Protect Electric Substation #31 to the 0.2% annual chance flood level.
Action Number:	
EphB-1	
Location (address, lat/long)	40.187812, -76.171369
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Ephrata Borough	Protect Ephrata Boro WWTP #1 to the 0.2% annual chance flood level.
Action Number:	
EphB-2	
Location (address, lat/long)	405 S Reading Rd; 40.175001, -76.197639
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Ephrata Borough	Protect Ephrata EMS to the 0.2% annual chance flood level.
Action Number:	
EphB-3	
Location (address, lat/long)	528 W Main St; 40.183559, -76.185552
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Ephrata Borough	Protect the Ephrata Borough Sewer Authority WWTP to the 0.2% annual chance flood level.
Action Number:	
EphB-4	
Location (address, lat/long)	40.174899, -76.197031
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Ephrata Borough	Protect Wastewater Pump #176 to the 0.2% annual chance flood level.
Action Number:	
EphB-5	
Location (address, lat/long)	40.18753, -76.179874
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Ephrata Borough	Protect Wastewater Pump #177 to the 0.2% annual chance flood level.
Action Number:	
EphB-6	
Location (address, lat/long)	40.182358, -76.184037
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Ephrata Borough	Protect Wastewater Pump #77 to the 0.2% annual chance flood level.
Action Number:	
EphB-7	
Location (address, lat/long)	40.175177, -76.194808
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Ephrata Borough	Protect Well #4 to the 0.2% annual chance flood level.
Action Number:	
EphB-8	
Location (address, lat/long)	40.171132, -76.175207
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Ephrata Borough	Protect Keller's Mill Bridge to the 0.2% annual chance flood level.
Action Number:	
EphB-9	
Location (address, lat/long)	40.16968415, -76.20256883
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Ephrata Borough	Protect Reservoir #11 to the 0.2% annual chance flood level.
Action Number:	
EphB-10	
Location (address, lat/long)	40.184768, -76.179275
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Ephrata Borough	Protect Terre Hill Composites, Inc. to the 0.2% annual chance flood level.
Action Number:	
EphB-11	
Location (address, lat/long)	40.181865, -76.183985
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Ephrata Borough	Protect Wastewater Pump #120 to the 0.2% annual chance flood level.
Action Number:	
EphB-12	
Location (address, lat/long)	40.171152, -76.201827
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Ephrata Borough	Protect Daniel Bauman House to the 0.2% annual chance flood level.
Action Number:	
EphB-13	
Location (address, lat/long)	40.18403727, -76.17926933
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Ephrata Borough	Protect Ephrata EMS to the 0.2% annual chance flood level.
Action Number:	
EphB-14	
Location (address, lat/long)	40.18355941, -76.18555245
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Ephrata Borough	Protect Well #44 to the 0.2% annual chance flood level.
Action Number:	
EphB-15	
Location (address, lat/long)	40.171132, -76.175207
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Ephrata Borough	Protect Family Medicine of Ephrata to the 0.2% annual chance flood level.
Action Number:	
EphB-16	
Location (address, lat/long)	40.18046844, -76.18356432
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Ephrata Borough	Protect Wellspan Family Medicine to the 0.2% annual chance flood level.
Action Number:	
EphB-17	
Location (address, lat/long)	40.1802877, -76.18279176
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Ephrata Borough	Protect Dunkelberger Osteopath, LTD to the 0.2% annual chance flood level.
Action Number:	
EphB-18	
Location (address, lat/long)	40.17753026, -76.18898691
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Ephrata Township	Improve drainage system at the intersection of Frysville Road and Newswanger Road.
Action Number:	
EphT-1	
Location (address, lat/long)	40.167505, -76.115181
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Ephrata Township	Protect the Ludwig Bloom House to the 0.2% annual chance flood level.
Action Number:	
EphT-2	
Location (address, lat/long)	40.16877525, -76.21645305
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Ephrata Township	Protect Bushongsor Shreiner's Mill to the 0.2% annual chance flood level.
Action Number:	
EphT-3	
Location (address, lat/long)	40.15347492, -76.12781974
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Ephrata Township	Protect Cocalico Creek Bridge to the 0.2% annual chance flood level.
Action Number:	
EphT-4	
Location (address, lat/long)	40.19418726, -76.15363161
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Ephrata Township	Protect Jacob Keller Mill to the 0.2% annual chance flood level.
Action Number:	
EphT-5	
Location (address, lat/long)	40.17038325, -76.20535783
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Ephrata Township	Protect Samuel Keller House to the 0.2% annual chance flood level.
Action Number:	
EphT-6	
Location (address, lat/long)	40.20438591, -76.18068171
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Ephrata Township	Protect Keller's Mill Covered Bridge to the 0.2% annual chance flood level.
Action Number:	
EphT-7	
Location (address, lat/long)	40.16993104, -76.20489931
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Ephrata Township	Protect Peter and Catherine Reyer Farmhouse to the 0.2% annual chance flood level.
Action Number:	
EphT-8	
Location (address, lat/long)	40.19447923, -76.17842476
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Ephrata Township	Protect Hinkle Tavern, Winters Hotel to the 0.2% annual chance flood level.
Action Number:	
EphT-9	
Location (address, lat/long)	40.15383636, -76.12807318
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Ephrata Township	Protect Landis House to the 0.2% annual chance flood level.
Action Number:	
EphT-10	
Location (address, lat/long)	40.16003795, -76.22386389
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Fulton Township	Protect Peach Bottom Marina to the 0.2% annual chance flood level.
Action Number:	
Ful-1	
Location (address, lat/long)	39.758457, -76.232884
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster City	Protect Potable Pump #79 to the 0.2% annual chance flood level.
Action Number:	
LancC-1	
Location (address, lat/long)	40.05095, -76.27583
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster City	Protect Potable Pump #98 to the 0.2% annual chance flood level.
Action Number:	
LancC-2	
Location (address, lat/long)	40.049761, -76.275642
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster City	Protect Tank #7 to the 0.2% annual chance flood level.
Action Number:	
LancC-3	
Location (address, lat/long)	40.049393, -76.274072
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster City	Protect Evoqua Water Technologies LLC to the 0.2% annual chance flood level.
Action Number:	
LancC-4	
Location (address, lat/long)	40.03133, -76.287711
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster City	Protect Engle Printing and Publishing to the 0.2% annual chance flood level.
Action Number:	
LancC-5	
Location (address, lat/long)	40.07, -76.32
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster City	Protect High Steel Service Center to the 0.2% annual chance flood level.
Action Number:	
LancC-6	
Location (address, lat/long)	40.066266, -76.323909
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster City	Protect Kurtz's Mill Bridge to the 0.2% annual chance flood level.
Action Number:	
LancC-7	
Location (address, lat/long)	40.01515661, -76.28227762
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster City	Protect Pennsylvania Railroad Bridge to the 0.2% annual chance flood level.
Action Number:	
LancC-8	
Location (address, lat/long)	40.05008405, -76.27801872
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster City	Protect Lancaster City Conestoga Filter Plant to the 0.2% annual chance flood level.
Action Number:	
LancC-9	
Location (address, lat/long)	40.049487, -76.273548
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster City	Protect Lancaster City Water to the 0.2% annual chance flood level.
Action Number:	
LancC-10	
Location (address, lat/long)	40.05061142, -76.2758907
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster City	Protect Wastewater Pump #166 to the 0.2% annual chance flood level.
Action Number:	
LancC-11	
Location (address, lat/long)	40.048611, -76.282756
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster City	Establish a floodplain management team to assist the FPA in NFIP administration, ordinance updates, staff training, and other needs.
Action Number:	
LancC-12	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	FPA
Support Agency(ies)/ Department(s)	City Administration
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster City	Conduct a facilities condition assessment to ensure green infrastructure practices are functioning as designed. Specific attention to elevated risk of sinkhole formation.
Action Number:	
LancC-13	
Location (address, lat/long)	Multiple Locations
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Subsidence, Sinkhole; Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster City	Identify capacity and needs an emergency generator at the Lancaster Advanced Wastewater Treatment Plant (AWWTP). Apply for grants and appropriate funding where possible. After purchase, install and maintain generators.
Action Number:	
LancC-14	
Location (address, lat/long)	Lancaster Advanced Wastewater Treatment Plant (AWWTP)
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams; Tornado/Windstorm; Utility Interruption; Winter Storm; Cyber Incident
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; RACP; Operating Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	DPW, facility manager
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster City	Although there has been no known issues reported since maintenance work completed in 2024, evaluate the Plum Street Railroad Underpass (CSS conveyance issue/ Manheim Township MS4 runoff to City's CSS) through the use of engineering investigations and infrastructure updates.
Action Number:	
LancC-15	
Location (address, lat/long)	Plum Street Railroad Underpass
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	Amtrak, Manheim Township
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster City, Lancaster Township **Action Number:** LancC-16	There are pipe restrictions at Fairview Avenue/New Danville Pike/Prince Street (CSO Outfall 002). Conduct additional investigations, engineering, infrastructure upgrades. Potential partnerships with Lancaster Township. Water Street Sewer Separation Phases 2-3 need final designs and construction funds, will help alleviate restrictions.
Location (address, lat/long)	Fairview Avenue, New Danville Pike, Prince Street
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	DPW, Lancaster Township
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster City	There is a bottleneck at the CSS at North Broad/Lehigh Avenue. The City's Broad St Disconnection project is in preliminary design now to provide stormwater storage capacity through an existing stormwater storage bed that can receive over 9 acres of existing impervious and partially bypass CSS. Seek additional funding if needed.
Action Number:	
LancC-17	
Location (address, lat/long)	North Broad, Lehigh Avenue
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Lancaster City	Conduct additional investigations, engineering, gray and green infrastructure upgrades at Steel Way/Manheim Pike (MS4 conveyance bottleneck and outfall restriction).
Action Number:	
LancC-18	
Location (address, lat/long)	Steel Way, Manheim Pike
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster City	Conduct additional investigations, engineering, gray and green infrastructure upgrades at Hershey Avenue/Wabank Road (MS4 conveyance restriction at outfall).
Action Number:	
LancC-19	
Location (address, lat/long)	Hershey Avenue, Wabank Road
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster City	At the Lancaster Advanced Wastewater Treatment Plant (AWWTP) there is a conveyance bottleneck due to headwall at unnamed tributary to the Conestoga River and the capacity of the 78" diameter wastewater plant outfall (discharge) pipe. Investigate sources of funding to resolve problem.
Action Number:	
LancC-20	
Location (address, lat/long)	Lancaster Advanced Wastewater Treatment Plant
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	DPW, Facility Manager
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster City	Develop a repetitive loss mitigation plan to fully analyze the long-term impacts of mitigation, especially in the areas along Conestoga River in Conestoga Heights and Engleside neighborhoods.
Action Number:	
LancC-21	
Location (address, lat/long)	Multiple Locations
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	Medium
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	FPA
Support Agency(ies)/ Department(s)	Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster City	Add new Susquehanna Water Raw Water and Finished Water Transmission Mains to harden infrastructure and decrease the risk to utility interruptions.
Action Number:	
LancC-22	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Utility Interruption
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; Operating Budget; User fees
Timeline	Short
Lead Agency/Department	Utility Interruption
Support Agency(ies)/ Department(s)	DPW, Facility Manager
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Lancaster City	Add new Water Transmission Main from the Susquehanna River to the Conestoga Water Treatment Plant to harden infrastructure and decrease the risk to utility interruptions.
Action Number:	
LancC-23	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Utility Interruption, Drought
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; Operating Budget; User fees
Timeline	Short
Lead Agency/Department	Utility Interruption
Support Agency(ies)/ Department(s)	DPW, Facility Manager
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster City	Identify community-based points of distribution with trusted partners, utilizing the CDC's Social Vulnerability Index, census data, and other planning tools to ensure accessible and equitable service delivery locations.
Action Number:	
LancC-24	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Pandemic and Infectious Disease
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	County Health
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster City	Increase planning efforts to ensure medically appropriate accommodations for people with substance use disorder to have access to medically assisted treatment and medications mitigate health risks and aid people experiencing withdrawal. Coordinate cooperation agreements with LEMSA and LGH Street Medicine.
Action Number:	
LancC-25	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Substance Use Disorder
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	LEMSA, LGH Street Medicine
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster City	Provide radon testing and mitigation through Healthy Homes Program to low- to moderate-income households most at risk. All City-funded housing rehabilitation projects will be tested for radon levels as part of the environmental review.
Action Number:	
LancC-26	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Radon Exposure
Priority (High, Medium, Low)	Low
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	Healthy Homes Program Facilitator
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster City	Improve interagency communications to readily share up-to-date information with public safety/first responders. Ensure access and protocols for laboratory testing of illicit drug samples.
Action Number:	
LancC-27	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	Substance Use Disorder
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	FD, PD, EMS
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster City	Continue implementing public emergency alert system. Develop interdepartmental workgroup to facilitate informed communications about hazardous substances, level of exposure, risks, and what residents should do to remain safe. Develop other protocols as needed to assess individuals that have been exposed.
Action Number:	
LancC-28	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Hazardous Materials Releases
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	City Departments
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster City	Develop a communications plan to inform residents about air quality impacts. Facilitate the provision of respiratory filters/masks to vulnerable populations during activities that increase exposure (i.e. travel to appointments/services, etc.)
Action Number:	
LancC-29	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Wildfire
Priority (High, Medium, Low)	Low
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	County Health
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster City	Partner with Penn State Extension and other agencies to determine appropriate interventions that promote environmental health. Develop communication plans to disseminate guidance to the public.
Action Number:	
LancC-30	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Invasive Species
Priority (High, Medium, Low)	Low
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	Penn State Extension, County Health
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster City	Establish a Long-Term Control Plan to address Combined Sewer Overflows (CSOs) in the wastewater conveyance system. These systems may need to have sewer separated expanded treatment, or increased storage capacity.
Action Number:	
LancC-31	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Utility Interruption
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; Operating Budget; User fees
Timeline	Short
Lead Agency/Department	FPA
Support Agency(ies)/ Department(s)	Utility Authorities
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster Township	Protect the Lancaster City Advanced WWTP to the 0.2% annual chance flood level.
Action Number:	
LancT-1	
Location (address, lat/long)	1220 New Danville Pike; 40.017171, -76.306951
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster Township	Protect Wastewater Pump #136 to the 0.2% annual chance flood level.
Action Number:	
LancT-2	
Location (address, lat/long)	40.013403, -76.330379
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster Township	Protect Wastewater Pump #148 to the 0.2% annual chance flood level.
Action Number:	
LancT-3	
Location (address, lat/long)	40.006802, -76.32425
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster Township	Protect Wastewater Pump #168 to the 0.2% annual chance flood level.
Action Number:	
LancT-4	
Location (address, lat/long)	40.004819, -76.304607
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster Township	Protect Wastewater Pump #169 to the 0.2% annual chance flood level.
Action Number:	
LancT-5	
Location (address, lat/long)	40.025376, -76.276155
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Lancaster Township	Protect Evoqua Water Technologies LLC to the 0.2% annual chance flood level.
Action Number:	
LancT-6	
Location (address, lat/long)	40.004536, -76.305074
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Lancaster Township	Protect Jacob Miller House to the 0.2% annual chance flood level.
Action Number:	
LancT-7	
Location (address, lat/long)	40.03265021, -76.27990042
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster Township	Protect Witmer's Tavern to the 0.2% annual chance flood level.
Action Number:	
LancT-8	
Location (address, lat/long)	40.03811584, -76.27428848
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster Township	Protect Conrad Miller House to the 0.2% annual chance flood level.
Action Number:	
LancT-9	
Location (address, lat/long)	40.01311303, -76.3295801
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Leacock Township	Protect Wastewater Pump #27 to the 0.2% annual chance flood level.
Action Number:	
LeaT-1	
Location (address, lat/long)	40.046233, -76.115938
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Leacock Township	Protect Leaman's Place Bridge to the 0.2% annual chance flood level.
Action Number:	
LeaT-2	
Location (address, lat/long)	40.01227658, -76.10795683
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Leacock Township	Protect Mill Creek Flour Mill to the 0.2% annual chance flood level.
Action Number:	
LeaT-3	
Location (address, lat/long)	40.07037929, -76.11386893
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Leacock Township	Protect North American Pipe Corporation to the 0.2% annual chance flood level.
Action Number:	
LeaT-4	
Location (address, lat/long)	40.044, -76.1128
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Leacock Township	Protect Spread Eagle Tavern to the 0.2% annual chance flood level.
Action Number:	
LeaT-5	
Location (address, lat/long)	40.01132346, -76.13568537
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Leacock Township	Develop and implement a proactive multi-dimensional training program including representatives from the Township, DPW, Fire Department, Police Department, and EMS
Action Number:	
LeaT-6	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	EMPG; HSGP; Annual Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	Township Administration, DPW, FD, PD, EMS
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Leacock Township	Identify capacity and needs for emergency generators and transfer switches at the pump stations throughout the Township. Apply for grants and appropriate funding where possible. After purchase, install and maintain generators.
Action Number:	
LeaT-7	
Location (address, lat/long)	Multiple Locations
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams; Tornado/Windstorm; Utility Interruption; Winter Storm; Cyber Incident
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; RACP; Operating Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Leacock Township	Develop, apply, and maintain a Smart911 Notification System
Action Number:	
LeaT-8	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	EMPG; HSGP; Annual Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lititz Borough	Protect the Warwick EMS facility to the 0.2% annual chance flood level.
Action Number:	
LitB-1	
Location (address, lat/long)	151 North Ln; 40.15717, -76.302284
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM; Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lititz Borough	Protect Wastewater Pump #72 to the 0.2% annual chance flood level.
Action Number:	
LitB-2	
Location (address, lat/long)	40.163471, -76.301533
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lititz Borough	Protect Well #74 to the 0.2% annual chance flood level.
Action Number:	
LitB-3	
Location (address, lat/long)	40.159324, -76.297353
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lititz Borough	Protect Well #75 to the 0.2% annual chance flood level.
Action Number:	
LitB-4	
Location (address, lat/long)	40.159364, -76.296343
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lititz Borough	Protect Versatek to the 0.2% annual chance flood level.
Action Number:	
LitB-5	
Location (address, lat/long)	40.156679, -76.293536
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lititz Borough	Protect Woodstream Corporation to the 0.2% annual chance flood level.
Action Number:	
LitB-6	
Location (address, lat/long)	40.157276, -76.29755
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lititz Borough	Protect LG Health Cedar to the 0.2% annual chance flood level.
Action Number:	
LitB-7	
Location (address, lat/long)	40.15789901, -76.30453271
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Lititz Borough	Protect Lititz Academy of Music to the 0.2% annual chance flood level.
Action Number:	
LitB-8	
Location (address, lat/long)	40.1586045, -76.29667777
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lititz Borough	Identify capacity and needs for emergency generators and transfer switches at the Water Treatment Plant and Wastewater Treatment Plant. Apply for grants and appropriate funding where possible. After purchase, install and maintain generators.
Action Number:	
LitB-9	
Location (address, lat/long)	Water Treatment Plant and Wastewater Treatment Plant
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams; Tornado/Windstorm; Utility Interruption; Winter Storm; Cyber Incident
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; RACP; Operating Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lititz Borough	Ensure that during severe storms conditions are monitored, including roadways, water and flood gauges, and local reports are reviewed.
Action Number:	
LitB-10	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Low
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	PD, FD
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lititz Borough	Educate the public on the functionality and use of the Regroup application. Encourage the public to sign up for emergency alerts and notifications.
Action Number:	
LitB-11	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	County
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Little Britain Township	Protect Abbotts Creamery to the 0.2% annual chance flood level.
Action Number:	
LitT-1	
Location (address, lat/long)	39.82350721, -76.08907645
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Little Britain Township	Protect Pine Grove Bridge to the 0.2% annual chance flood level.
Action Number:	
LitT-2	
Location (address, lat/long)	39.79361942, -76.04476154
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Little Britain Township	Protect Octoraro Treatment Plant to the 0.2% annual chance flood level.
Action Number:	
LitT-3	
Location (address, lat/long)	39.79442, -76.04569
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manheim Borough	Protect Electric Substation #42 to the 0.2% annual chance flood level.
Action Number:	
ManhB-1	
Location (address, lat/long)	40.156481, -76.395163
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manheim Borough	Protect Potable Pump #101 to the 0.2% annual chance flood level.
Action Number:	
ManhB-2	
Location (address, lat/long)	40.15566, -76.390785
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manheim Borough	Protect the Manheim FD station to the 0.2% annual chance flood level.
Action Number:	
ManhB-3	
Location (address, lat/long)	83 S Main St; 40.162194, -76.392892
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manheim Borough	Protect Wastewater Pump #200 to the 0.2% annual chance flood level.
Action Number:	
ManhB-4	
Location (address, lat/long)	40.160134, -76.384544
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manheim Borough	Protect Well #57 to the 0.2% annual chance flood level.
Action Number:	
ManhB-5	
Location (address, lat/long)	40.154234, -76.40551
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manheim Borough	Protect Well #58 to the 0.2% annual chance flood level.
Action Number:	
ManhB-6	
Location (address, lat/long)	40.155395, -76.405643
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manheim Borough	Protect Shearer's Bridge to the 0.2% annual chance flood level.
Action Number:	
ManhB-7	
Location (address, lat/long)	40.1719146, -76.38973837
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manheim Borough	Protect F L Smidth, Inc. to the 0.2% annual chance flood level.
Action Number:	
ManhB-8	
Location (address, lat/long)	40.15564, -76.393623
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC, FMA; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manheim Borough	Protect Manheim Borough 2W Polling Station to the 0.2% annual chance flood level.
Action Number:	
ManhB-9	
Location (address, lat/long)	40.1669053, -76.38929525
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC, FMA; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manheim Borough	Develop a Repetitive Loss Mitigation Plan to address the broader impacts of mitigation efforts and ensure sustainable long-term solutions.
Action Number:	
ManhB-10	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Flood/Flash Flood/Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	FPA
Support Agency(ies)/ Department(s)	Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manheim Borough	Mitigate flood risks on Mill Street and surrounding neighborhoods through a comprehensive strategy incorporating property acquisition, elevation projects, and infrastructure upgrades.
Action Number:	
ManhB-11	
Location (address, lat/long)	Mill Street, Other Identified Areas
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	Flood/Flash Flood/Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC, FMA; Operating Budget
Timeline	Short
Lead Agency/Department	FPA
Support Agency(ies)/ Department(s)	Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manheim Borough **Action Number:** ManhB-12	Critical facilities and infrastructure including Potable Pump #101, the Manheim Fire Department Station, and key roadways, are vulnerable to flooding. To enhance community resilience, implement targeted mitigation measures, including elevating critical facilities and roadways, floodproofing essential infrastructure, and upgrading stormwater management systems.
Location (address, lat/long)	Multiple Locations
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood/Flash Flood/Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC, FMA; Operating Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	DPW, FPA
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manheim Borough **Action Number:** ManhB-13	Implement accessible educational programs, inclusive communication channels, and neighborhood support networks to address the unique needs of socially vulnerable populations during hazard events. Provide tailored resources such as emergency kits, transportation, and shelters, and involve representatives from these groups in mitigation planning to ensure their needs are prioritized. This approach fosters equity and resilience while reducing the impacts of disasters on underserved populations.
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG; Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	Borough Departments; Non-profits
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manheim Borough	Develop and implement a comprehensive Public Education and Outreach Program to address awareness gaps, promote hazard preparedness, and improve community engagement. This program will include workshops, information dissemination via multiple platforms, and outreach campaigns tailored to local hazard risks. These efforts will empower residents to take proactive steps to protect themselves and their properties during hazard events.
Action Number:	
ManhB-14	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG; Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	FD, DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manheim Borough **Action Number:** ManhB-15	Develop a Substantial Damage Management Plan, following the six-step process outlined in the 2021 "Developing a Substantial Damage Management Plan" guide. This plan will establish clear responsibilities for determining substantial damage, assessing market value, and managing permit approvals after disaster events. By implementing this plan, Manheim will enhance its capacity to enforce NFIP regulations, improve disaster recovery processes, and ensure compliance with local floodplain requirements, ultimately strengthening community resilience against flooding.
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Dam Failure, Earthquake, Flood/Flash Flood/Ice Jams, Hailstorms, Subsidence/Sinkholes, Tornado/Windstorm, Wildfire, Winter Storm
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Engineer, FPA
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manheim Township	Protect District Justice Office 13 to the 0.2% annual chance flood level.
Action Number:	
ManhT-1	
Location (address, lat/long)	2205 Oregon Oike; 40.086082, -76.285442
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manheim Township	Protect Wastewater Pump #143 to the 0.2% annual chance flood level.
Action Number:	
ManhT-2	
Location (address, lat/long)	40.070761, -76.26311
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manheim Township	Protect Wastewater Pump #166 to the 0.2% annual chance flood level.
Action Number:	
ManhT-3	
Location (address, lat/long)	40.048611, -76.282756
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manheim Township	Protect Wastewater Pump #167 to the 0.2% annual chance flood level.
Action Number:	
ManhT-4	
Location (address, lat/long)	40.053589, -76.278118
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manheim Township	West Roseville Road Bridge Demolition - Demolish and remove the West Roseville Road Bridge spanning the Little Conestoga Creek. Removal of an unsafe structure and obstruction in the floodway.
Action Number:	
ManhT-5	
Location (address, lat/long)	40.064630, -76.343080
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Long
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manheim Township	Work with PENNDOT to redesign the interchange at US-30 and US-222.
Action Number:	
ManhT-6	
Location (address, lat/long)	40.067299, -76.288254
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Transportation Accident
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	PENNDOT
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Manheim Township	Protect Brubaker House to the 0.2% annual chance flood level.
Action Number:	
ManhT-7	
Location (address, lat/long)	40.06568035, -76.26429014
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Manheim Township	Protect Buckbee Hearing Aid Center to the 0.2% annual chance flood level.
Action Number:	
ManhT-8	
Location (address, lat/long)	40.11712302, -76.31371279
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Manheim Township	Protect Hunsecker's Mill Bridge to the 0.2% annual chance flood level.
Action Number:	
ManhT-9	
Location (address, lat/long)	40.08740947, -76.24769492
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manheim Township	Protect Iron Stone Mill to the 0.2% annual chance flood level.
Action Number:	
ManhT-10	
Location (address, lat/long)	40.10666667, -76.23833333
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Manheim Township	Protect Flory's Mill to the 0.2% annual chance flood level.
Action Number:	
ManhT-11	
Location (address, lat/long)	40.08005392, -76.35111482
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Manheim Township	Protect Landis Mill Covered Bridge to the 0.2% annual chance flood level.
Action Number:	
ManhT-12	
Location (address, lat/long)	40.0685919, -76.34499579
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manheim Township	Protect Mount Joy Hatchery to the 0.2% annual chance flood level.
Action Number:	
ManhT-13	
Location (address, lat/long)	40.0754, -76.332
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manheim Township	Protect Philip Rudisil House to the 0.2% annual chance flood level.
Action Number:	
ManhT-14	
Location (address, lat/long)	40.05404941, -76.2788232
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Manheim Township	Protect John Brubaker Barn to the 0.2% annual chance flood level.
Action Number:	
ManhT-15	
Location (address, lat/long)	40.07833251, -76.26095724
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Manheim Township	Protect M. Groff House to the 0.2% annual chance flood level.
Action Number:	
ManhT-16	
Location (address, lat/long)	40.11004265, -76.32584299
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Manheim Township	Protect Christian L. Hunsecker House to the 0.2% annual chance flood level.
Action Number:	
ManhT-17	
Location (address, lat/long)	40.08878378, -76.24916048
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Manheim Township	Protect Samuel Hunsicker House to the 0.2% annual chance flood level.
Action Number:	
ManhT-18	
Location (address, lat/long)	40.07026101, -76.26296676
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Manheim Township	Protect Oregon (Withers) Mill to the 0.2% annual chance flood level.
Action Number:	
ManhT-19	
Location (address, lat/long)	40.11380167, -76.24808278
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manheim Township	Protect Rudisill Family Cemetery to the 0.2% annual chance flood level.
Action Number:	
ManhT-20	
Location (address, lat/long)	40.05221954, -76.2776982
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Manheim Township	Protect Abraham Shenk House to the 0.2% annual chance flood level.
Action Number:	
ManhT-21	
Location (address, lat/long)	40.11331493, -76.24852178
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Manheim Township	Protect Christian Zook House to the 0.2% annual chance flood level.
Action Number:	
ManhT-22	
Location (address, lat/long)	40.0869267, -76.26430639
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Manheim Township	The Township will update its comprehensive plan. Ensure that the local comprehensive plan incorporates hazard mitigation techniques through a courtesy review or draft plans by the County Planning Department.
Action Number:	
ManhT-23	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Planning Board
Support Agency(ies)/ Department(s)	Township Administration, County Planning
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Manheim Township	Evaluate the culverts in the Township for capacity and deterioration. Address issues or replace the culverts as necessary.
Action Number:	
ManhT-24	
Location (address, lat/long)	Multiple Locations
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Engineer
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manheim Township **Action Number:** ManhT-25	The Municipal Engineer will work to complete an engineering study of Manheim Township Detention Basin No 2. The Township will also request information and input from its Public Works department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township will pursue funding support, permit approval from PADEP, and implement the cost-effective measures.
Location (address, lat/long)	Manheim Township Detention Basin No 2
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Dam Failure; Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA BRIC, HHPD
Timeline	Short
Lead Agency/Department	Manheim Township
Support Agency(ies)/ Department(s)	County Engineer, County EMA, PADEP, Municipal Engineer
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manor Township	Protect Electric Substation #6 to the 0.2% annual chance flood level.
Action Number:	
ManT-1	
Location (address, lat/long)	39.926608, -76.385169
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Manor Township	Protect Bender's Mill to the 0.2% annual chance flood level.
Action Number:	
ManT-2	
Location (address, lat/long)	39.99144865, -76.40565926
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Manor Township	Protect Blue Rock Ferry Site to the 0.2% annual chance flood level.
Action Number:	
ManT-3	
Location (address, lat/long)	39.98197693, -76.46444517
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Manor Township	Protect Charlestown Plant to the 0.2% annual chance flood level.
Action Number:	
ManT-4	
Location (address, lat/long)	40.022562, -76.365456
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manor Township	Protect Martin Chartier Commemorative Marker to the 0.2% annual chance flood level.
Action Number:	
ManT-5	
Location (address, lat/long)	39.99796597, -76.4732496
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Manor Township	Protect Frantz Mill to the 0.2% annual chance flood level.
Action Number:	
ManT-6	
Location (address, lat/long)	40.00972222, -76.37472222
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Manor Township	Protect Christian and Susanna Herr Barn and House to the 0.2% annual chance flood level.
Action Number:	
ManT-7	
Location (address, lat/long)	39.9893803, -76.46791798
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Manor Township	Protect Abraham Landis House to the 0.2% annual chance flood level.
Action Number:	
ManT-8	
Location (address, lat/long)	39.99507824, -76.47131121
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Manor Township	Protect Maple Grove Mill to the 0.2% annual chance flood level.
Action Number:	
ManT-9	
Location (address, lat/long)	40.03776573, -76.34360153
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manor Township	Protect Safe Harbor Water Power Corporation to the 0.2% annual chance flood level.
Action Number:	
ManT-10	
Location (address, lat/long)	39.925072, -76.389299
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Manor Township	Protect Stoneroad's Mill to the 0.2% annual chance flood level.
Action Number:	
ManT-11	
Location (address, lat/long)	40.02935859, -76.34406677
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manor Township	Protect Washington Boro Methodist Episcopal Church to the 0.2% annual chance flood level.
Action Number:	
ManT-12	
Location (address, lat/long)	39.99609854, -76.47184261
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manor Township	Protect Jacob Witmer Sr. Mill to the 0.2% annual chance flood level.
Action Number:	
ManT-13	
Location (address, lat/long)	39.98053784, -76.4631948
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manor Township	Protect Amtrak/Conestoga Substation to the 0.2% annual chance flood level.
Action Number:	
ManT-14	
Location (address, lat/long)	39.9268, -76.3852
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Manor Township	Protect J.S. Bear Mill to the 0.2% annual chance flood level.
Action Number:	
ManT-15	
Location (address, lat/long)	39.99234144, -76.3790986
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manor Township	Protect PPL Conestoga Kv Substation to the 0.2% annual chance flood level.
Action Number:	
ManT-16	
Location (address, lat/long)	39.926636, -76.385189
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manor Township	Protect Windom Mill Complex to the 0.2% annual chance flood level.
Action Number:	
ManT-17	
Location (address, lat/long)	40.00771228, -76.40173227
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manor Township	Staff within Manor Township could benefit from additional emergency management meetings and training to ensure emergency management concepts are practiced and understood.
Action Number:	
ManT-18	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget, EMPG
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manor Township	Flooding occurs in the Township along the Susquehanna River. Improved flood water management system must be installed to reduce risk and impacts.
Action Number:	
ManT-19	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Manor Township	Flooding occurs in the Township along the Conestoga River. Improved flood control system must be installed to reduce risk and impacts.
Action Number:	
ManT-20	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Marietta Borough	Protect the Marietta Borough Building to the 0.2% annual chance flood level.
Action Number:	
MarB-1	
Location (address, lat/long)	111 E. Market St; 40.057183, -76.551958
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Marietta Borough	Protect the Marietta Donegal Sewage Treatment Plant to the 0.2% annual chance flood level.
Action Number:	
MarB-2	
Location (address, lat/long)	50 Furnace Rd; 40.058267, -76.534301
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Marietta Borough	Protect the Marietta Fire Department station to the 0.2% annual chance flood level.
Action Number:	
MarB-3	
Location (address, lat/long)	200 N Waterford Ave; 40.059541, -76.550953
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Marietta Borough	Protect the Marietta-East Donegal Joint Authority WWTP to the 0.2% annual chance flood level.
Action Number:	
MarB-4	
Location (address, lat/long)	40.058024, -76.534528
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Marietta Borough	Protect the Susquehanna Valley EMS facility to the 0.2% annual chance flood level.
Action Number:	
MarB-5	
Location (address, lat/long)	200 N Waterford Ave; 40.059546, -76.550934
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Marietta Borough	Protect Wastewater Pump #53 to the 0.2% annual chance flood level.
Action Number:	
MarB-6	
Location (address, lat/long)	40.056666, -76.551181
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Marietta Borough	Protect Joseph Bucher House to the 0.2% annual chance flood level.
Action Number:	
MarB-7	
Location (address, lat/long)	40.05618077, -76.55167077
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Marietta Borough	Protect Donegal Furnace Ruins to the 0.2% annual chance flood level.
Action Number:	
MarB-8	
Location (address, lat/long)	40.05798077, -76.53251216
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Marietta Borough	Protect, B.F. Heistand and Co. Saw Mill Site to the 0.2% annual chance flood level.
Action Number:	
MarB-9	
Location (address, lat/long)	40.05538437, -76.52779541
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Marietta Borough	Protect Marietta Furnace No. 1 Ruins to the 0.2% annual chance flood level.
Action Number:	
MarB-10	
Location (address, lat/long)	40.05827874, -76.5343978
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Marietta Borough	Protect Vesta Furnace Site Complex to the 0.2% annual chance flood level.
Action Number:	
MarB-11	
Location (address, lat/long)	40.05830581, -76.5356794
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Marietta Borough	Protect Penn State Life Lion EMS to the 0.2% annual chance flood level.
Action Number:	
MarB-12	
Location (address, lat/long)	40.05954591, -76.55093428
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Martic Township	Protect Baumgardener's Bridge to the 0.2% annual chance flood level.
Action Number:	
MarT-1	
Location (address, lat/long)	39.93030966, -76.29510615
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Martic Township	Protect Colemanville Covered Bridge to the 0.2% annual chance flood level.
Action Number:	
MarT-2	
Location (address, lat/long)	39.89886333, -76.34212952
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Martic Township	Protect Duncan Island to the 0.2% annual chance flood level.
Action Number:	
MarT-3	
Location (address, lat/long)	39.86176349, -76.36265157
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Martic Township	Protect Safe Harbor Water Power Corporation to the 0.2% annual chance flood level.
Action Number:	
MarT-4	
Location (address, lat/long)	39.875, -76.375
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Martic Township	Protect Henry Hess House to the 0.2% annual chance flood level.
Action Number:	
MarT-5	
Location (address, lat/long)	39.92078722, -76.31824274
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Martic Township	Protect Holtwood Power Plant to the 0.2% annual chance flood level.
Action Number:	
MarT-6	
Location (address, lat/long)	39.82729716, -76.3304033
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Martic Township	Amend the Flood Damage Prevention Ordinance to update the title/position held by the Floodplain Administrator.
Action Number:	
MarT-7	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Flood, Flash Flood, Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Township Administration
Support Agency(ies)/ Department(s)	FPA
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Martic Township	Identify capacity and needs for an emergency generator and transfer switch at the Township Building. Apply for grants and appropriate funding where possible. After purchase, install and maintain generators.
Action Number:	
MarT-8	
Location (address, lat/long)	Township Building
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams; Tornado/Windstorm; Utility Interruption; Winter Storm; Cyber Incident
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; RACP; Operating Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Martic Township	There are culverts throughout the Township which may be undersized or have failing components which are located underground. When funding and staffing is available, the Township will address the culvert issues. If possible, the Township will assess the feasibility of hiring external contractors. The Township will continue its assessment of the integrity and replacement schedule of the culverts throughout its jurisdiction.
Action Number:	
MarT-9	
Location (address, lat/long)	Multiple Locations
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Martic Township	The Township will conduct outreach to property owners along the Pequea Creek to identify whether they have incurred property damage from flooding associated with the Pequea Creek. The Township will develop a list of property owners which may be interested in flood mitigation measures, included elevation or acquisition.
Action Number:	
MarT-10	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	FPA
Support Agency(ies)/ Department(s)	Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Martic Township	The Township will work with local NGOs, churches, and other community locations to provide information relating to hazard mitigation and preparedness geared toward the readiness of individuals, the community as a whole, and properties.
Action Number:	
MarT-11	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	local NGOs, churches, and other community locations
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Martic Township	The Township will take a variety of actions to reduce the risk to the wildfire hazard in the interface and intermix areas: 1. Educate property and business owners how to mitigate risk, including managing vegetation, keeping yards clear, ensuring there is enough boundary between the wooded or forested areas and their property. 2. Ensure Township employees (DPW, Fire Services) maintain the wooded or forested areas by clearing and maintaining ground vegetation and utilizing prescribed burns when and where appropriate. 3. Consider joining the Firewise Program, which teaches people how to adapt to living with wildfire and encourages neighbors to work together and take action now to prevent losses. 4. Write and adopt a Community Wildfire Protection Plan which would provide a framework for mitigating wildland fire impacts throughout the Township.
Action Number:	
MarT-12	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	Wildfire
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	DPW, Township Administration
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Martic Township **Action Number:** MarT-13	The Township will conduct research into other avenues for water supplies and will consider the following strategies: 1. Prioritizing investment in water infrastructure by developing and maintaining water harvesting structures, and building new water systems, storage tanks, and treatment facilities while fostering community engagement. 2. Promoting the protection of watersheds and ensuring sustainable groundwater extraction. 3. Empower the community with the knowledge and skills to manage their water resources by providing educational programs on how to improve their current water management practices ad become more sustainable. 4. Enforce standards for water quality, promote efficient water use, and incentivize conservation efforts. 5. Leverage technology to improve water management systems, including solar-powered pumps, remote sensing for monitoring water levels, and mobile applications for reporting issues can enhance water access and management.
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Drought, Utility Interruption, Wildfire
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Township Administration
Support Agency(ies)/ Department(s)	Engineer, DPW, FPA
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Martic Township	The Township will engage with the Lancaster Conservancy to hold discussions on joint responsibility and assistance with the increase in call volumes, which has resulted in an up-tick of emergency responses on land owned by the Lancaster Conservancy. These discussions will lead to the writing and adoption of a Memorandum of Agreement or Memorandum of Understanding between the two entities which will outline the roles and responsibilities of each.
Action Number:	
MarT-14	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Flood/Flash Flood/Ice Jams, Hailstorms, Tornado/Windstorm, Winter Storm
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	Lancaster Conservancy
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Martic Township **Action Number:** MarT-15	The Municipal Engineer will work with the Pennsylvania Power and Light Company to complete an engineering study of Holtwood SES Ash Basin No 2. The Township will also request information and input from its Road department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the Pennsylvania Power and Light Company will pursue funding support, permit approval from PADEP, and implement the cost-effective measures.
Location (address, lat/long)	Holtwood SES Ash Basin No 2
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Dam Failure; Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA BRIC, HHPD
Timeline	Short
Lead Agency/Department	Pennsylvania Power and Light Company
Support Agency(ies)/ Department(s)	County Engineer, County EMA, PADEP, Municipal Engineer
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Millersville Borough	Protect Wastewater Pump #179 to the 0.2% annual chance flood level.
Action Number:	
MillB-1	
Location (address, lat/long)	39.996294, -76.345776
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Millersville Borough	Identify capacity and needs for an emergency generator and transfer switch at the Fire Station. Apply for grants and appropriate funding where possible. After purchase, install and maintain generators.
Action Number:	
MillB-2	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams; Tornado/Windstorm; Utility Interruption; Winter Storm; Cyber Incident
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; RACP; Operating Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	DPW, Fire Department
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Millersville Borough	There is a large number of students and staff in the Borough at both Penn Manor High School and Millersville University, which are both critical facilities. The Borough will work with the School District and University to evaluate and develop evacuation and communication plans.
Action Number:	
MillB-3	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	Borough Budget; School District Budget; University Budget
Timeline	Short
Lead Agency/Department	Borough OEM
Support Agency(ies)/ Department(s)	Penn Manor School District, Millersville University
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Millersville Borough	There is a large number of students in the Borough at both Penn Manor High School and Millersville University. It is likely these students experience mental health issues. The Borough will work with the School District and University to create plans with internal and external agencies to identify solutions on how to assist impacted students.
Action Number:	
MillB-4	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Substance Use Disorder and Mental Health
Priority (High, Medium, Low)	Low
Estimated Cost	Medium
Potential Funding Streams	Borough Budget; School District Budget; University Budget
Timeline	Short
Lead Agency/Department	Borough OEM
Support Agency(ies)/ Department(s)	Penn Manor School District, Millersville University
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Mount Joy Borough	Conduct a detailed flood study of the Little Chiques Creek.
Action Number:	
MJB-1	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA RiskMap; Private Developers
Timeline	Short
Lead Agency/Department	Municipal FPA
Support Agency(ies)/ Department(s)	Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Mount Joy Borough	Modifications to the Borough Stormwater Detention Basin - increasing the volume of the basin by increasing the height of the berms and/or increasing the footprint of the basin and replacing a 45' long drainage swale with a pipe to prohibit stormwater from flowing over the swale berm.
Action Number:	
MJB-2	
Location (address, lat/long)	40.115550, -76.529588
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	Borough Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Mount Joy Borough	The Borough Public Works has identified old and aging stormwater management systems that have issues and is prepared to make upgrades or cleanouts if funding is available. This would include replacing terracotta storm water pipes to prevent ruptures and cleaning out existing pipes.
Action Number:	
MJB-3	
Location (address, lat/long)	Multiple Locations
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Borough Engineer
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Mount Joy Borough	Construct a Flood Wall around the Waste Water Treatment Plant to prevent flood waters from Little Chiques Creek from encroaching on the plant and causing a shutdown.
Action Number:	
MJB-4	
Location (address, lat/long)	Waste Water Treatment Plant
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam; Utility Interruption
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	Borough Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Mount Joy Borough	Install lining of sewer mains and maintenance holes to prevent inflow and infiltration of stormwater system wide
Action Number:	
MJB-5	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Borough Engineer
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Mount Joy Borough	Design and construct a flood wall around the Waste Water Treatment Plant to prevent shutdown from flood waters of the Little Chiques Creek.
Action Number:	
MJB-6	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	Borough Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Mount Joy Borough	Replace aging terracotta sewer mains throughout the system to prevent ruptures during flooding events.
Action Number:	
MJB-7	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Borough Engineer
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Mount Joy Borough	Reconstruct drinking water wells by installing casing to a lower depth to prevent stormwater infiltration.
Action Number:	
MJB-8	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Borough Engineer
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Mount Joy Borough	Construct or enhance Flood Doors/Barriers on well houses and sewage pump stations to keep out flood water so the facility remains functional during flooding events.
Action Number:	
MJB-9	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	Borough Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Mount Joy Borough	Replace/Rehabilitate water filters to handle infiltrated storm water.
Action Number:	
MJB-10	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Borough Engineer
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Mount Joy Borough **Action Number:** MJB-11	Streambank Restoration Project for the Little Chiques Creek Park. This is a 2.5-million-dollar project. Once completed it will address both flooding in the park and along some of the houses in the general area as well as stop the erosion of the streambanks.
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	Borough Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Mount Joy Borough	Increase the Stormwater Capacity to the outfall to the Little Chiques and Donegal Creek's watershed system wide.
Action Number:	
MJB-12	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	Borough Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Mount Joy Borough	Replace aging and failing corrugated metal storm pipe throughout the borough.
Action Number:	
MJB-13	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Borough Engineer
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Mount Joy Borough	Improve and Upgrade the Locust Lane Storm Water Management Basin. Repair existing sink holes in the basing and increase function and capacity of the basin.
Action Number:	
MJB-14	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	Borough Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Mount Joy Borough	Improve and Upgrade the Pink Alley Storm Water Management Basin
Action Number:	
MJB-15	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	Borough Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Mount Joy Borough	Construct a new Stormwater Management Facility to prevent flooding of the Manheim St area.
Action Number:	
MJB-16	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	Borough Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Mount Joy Borough	Improve Stormwater management capacity in problem areas of the system.
Action Number:	
MJB-17	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	Borough Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Mount Joy Borough	Improve and Upgrade the Stormwater Management piping under the Amtrak railroad lines and pipes that drain into the Amtrak railroad cut in the borough.
Action Number:	
MJB-18	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	Borough Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Mount Joy Borough	Repair and prevent erosion from stormwater near the Barbara St Bridge spanning the Amtrak railroad cut.
Action Number:	
MJB-19	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	Borough Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Mount Joy Borough	Purchase two mobile generator units to power sewer or water facilities in the event of major power loss to maintain service to the borough.
Action Number:	
MJB-20	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam; Utility Interruption
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	Borough Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Mount Joy Township	Protect Wastewater Pump #84 to the 0.2% annual chance flood level.
Action Number:	
MJT-1	
Location (address, lat/long)	40.138348, -76.55645
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Mount Joy Township	Raise Koser Road at the approach to the bridge over Conewago Creek.
Action Number:	
MJT-2	
Location (address, lat/long)	40.190326, -76.589536
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	$10,000
Potential Funding Streams	General Fund/ Liquid Fuels
Timeline	Short
Lead Agency/Department	Township Public Works
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	Justin Evans
Title	Township Manager
Agency/Department	Mount Joy Township
Phone	717-367-8917
E-mail	justin@mtjoytwp.org

Municipality(ies):	Action
Mount Joy Township	Raise Prospect Road at the approach to the bridge over Conewago Creek.
Action Number:	
MJT-3	
Location (address, lat/long)	40.195227, -76.567767
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	$10,000
Potential Funding Streams	General Fund/ Liquid Fuels
Timeline	Short
Lead Agency/Department	Township Public Works
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	Justin Evans
Title	Township Manager
Agency/Department	Mount Joy Township
Phone	717-367-8917
E-mail	justin@mtjoytwp.org

Municipality(ies):	**Action**
Mount Joy Township	Protect Martin Nissley House to the 0.2% annual chance flood level.
Action Number:	
MJT-4	
Location (address, lat/long)	40.13895492, -76.55582049
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Mount Joy Township	Protect Risser's Mill Covered Bridge to the 0.2% annual chance flood level.
Action Number:	
MJT-5	
Location (address, lat/long)	40.13943639, -76.50602278
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Mount Joy Township	Investigate and implement additional security measures on the municipal complex.
Action Number:	
MJT-6	
Location (address, lat/long)	Municipal Complex
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Terrorism
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	HSGP; Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Mount Joy Township	Provide active shooter training to municipal staff.
Action Number:	
MJT-7	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	Terrorism
Priority (High, Medium, Low)	Low
Estimated Cost	Medium
Potential Funding Streams	HSGP; EMPG; Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Mount Joy Township	Reassess snow evacuation routes and prepare better graphics and communication materials to the public and first responders.
Action Number:	
MJT-8	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	Winter Storm
Priority (High, Medium, Low)	Low
Estimated Cost	Medium
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	PD, Municipal EMC, FD, EMS
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Mount Joy Township	Consolidate all winter weather resources at the municipal complex via a master planning process and construction. This will improve response time and efficiency in responding to forecasted and emergency winter weather events.
Action Number:	
MJT-9	
Location (address, lat/long)	Municipal Complex
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Winter Storm
Priority (High, Medium, Low)	Low
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	PD, Municipal EMC, FD, EMS
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Mountville Borough	Work with EMC and borough manager/mayor to orient the new EMC to current projects and status of emergency items.
Action Number:	
MVB-1	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Borough Manager
Support Agency(ies)/ Department(s)	Mayor, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Mountville Borough	The EMC will work with teams that manage borough social media to include EM and preparedness communications. EMC will assist in community programs and outreach as available.
Action Number:	
MVB-2	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Paradise Township	Protect the Paradise Township Sewer Authority WWTP to the 0.2% annual chance flood level.
Action Number:	
ParT-1	
Location (address, lat/long)	40.012723, -76.131771
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Paradise Township	Protect Wastewater Pump #89 to the 0.2% annual chance flood level.
Action Number:	
ParT-2	
Location (address, lat/long)	40.00703, -76.111326
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Paradise Township	Protect Wastewater Pump #91 to the 0.2% annual chance flood level.
Action Number:	
ParT-3	
Location (address, lat/long)	40.008341, -76.139383
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Paradise Township	Protect Black Horse Amish Parochial School to the 0.2% annual chance flood level.
Action Number:	
ParT-4	
Location (address, lat/long)	39.9926669, -76.11999643
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Paradise Township	Protect the Sign of the Buck to the 0.2% annual chance flood level.
Action Number:	
ParT-5	
Location (address, lat/long)	40.0134437, -76.13074669
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Paradise Township	Protect Eshelman Run Amish School to the 0.2% annual chance flood level.
Action Number:	
ParT-6	
Location (address, lat/long)	39.99325937, -76.10937005
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Paradise Township	Protect Jacob Eshleman II House to the 0.2% annual chance flood level.
Action Number:	
ParT-7	
Location (address, lat/long)	40.01034092, -76.11115863
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Paradise Township	Protect Leaman Place Covered Bridge to the 0.2% annual chance flood level.
Action Number:	
ParT-8	
Location (address, lat/long)	40.01223332, -76.10794222
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Paradise Township	Protect Osceola Mill to the 0.2% annual chance flood level.
Action Number:	
ParT-9	
Location (address, lat/long)	40.01912791, -76.08535841
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Paradise Township	Protect LeFever Mill to the 0.2% annual chance flood level.
Action Number:	
ParT-10	
Location (address, lat/long)	40.01015733, -76.11079619
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Penn Township	Clear obstructions from the stormwater management system near the intersection of Fruitville Pike/New Charlotte Street and Main Street (PA-72).
Action Number:	
PennT-1	
Location (address, lat/long)	40.158581, -76.389494
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	PENNDOT
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Penn Township	Protect the Manheim Borough Authority WWTP to the 0.2% annual chance flood level.
Action Number:	
PennT-2	
Location (address, lat/long)	40.154886, -76.403426
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Penn Township	Protect Wastewater Pump #199 to the 0.2% annual chance flood level.
Action Number:	
PennT-3	
Location (address, lat/long)	40.165696, -76.384766
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Penn Township	Protect Well #39 to the 0.2% annual chance flood level.
Action Number:	
PennT-4	
Location (address, lat/long)	40.17114, -76.369311
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Penn Township	Update stormwater management regulations to make them more restrictive for new development.
Action Number:	
PennT-5	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Board of Supervisors
Support Agency(ies)/ Department(s)	FPA
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Penn Township	Upgrade stormwater management infrastructure along White Oak Road south of Hamaker Road.
Action Number:	
PennT-6	
Location (address, lat/long)	40.174433, -76.388807
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Penn Township	Upgrade stormwater management infrastructure at the intersection of Stiegel Valley Road and White Oak Road.
Action Number:	
PennT-7	
Location (address, lat/long)	40.171163, -76.388247
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Penn Township	Protect Ferrellgas to the 0.2% annual chance flood level.
Action Number:	
PennT-8	
Location (address, lat/long)	40.16833, -76.3877
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Pequea Township	Protect Baumgardner's Mill to the 0.2% annual chance flood level.
Action Number:	
Peq-1	
Location (address, lat/long)	39.93135368, -76.29433578
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Pequea Township	Protect Daniel Good House to the 0.2% annual chance flood level.
Action Number:	
Peq-2	
Location (address, lat/long)	39.93482173, -76.28257247
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Pequea Township	Protect Abraham and Sarah Hess Barn to the 0.2% annual chance flood level.
Action Number:	
Peq-3	
Location (address, lat/long)	39.94235146, -76.30760073
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Pequea Township	Protect A.B. Mylin House to the 0.2% annual chance flood level.
Action Number:	
Peq-4	
Location (address, lat/long)	39.94311412, -76.25997281
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Pequea Township	Protect Pequea Valley Hotel to the 0.2% annual chance flood level.
Action Number:	
Peq-5	
Location (address, lat/long)	39.9463254, -76.25701754
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Pequea Township	Amend the Flood Damage Prevention Ordinance to update the title/position held by the Floodplain Administrator.
Action Number:	
Peq-6	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Township Administration
Support Agency(ies)/ Department(s)	FPA
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Pequea Township	Identify capacity and needs for an emergency generator and transfer switch at the Township Building. Apply for grants and appropriate funding where possible. After purchase, install and maintain generators.
Action Number:	
Peq-7	
Location (address, lat/long)	Township Building
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams; Tornado/Windstorm; Utility Interruption; Winter Storm; Cyber Incident
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; RACP; Operating Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Pequea Township	There are culverts throughout the Township which may be undersized or have failing components which are located underground. When funding and staffing is available, the Township will address the culvert issues. If possible, the Township will assess the feasibility of hiring external contractors. The Township will continue its assessment of the integrity and replacement schedule of the culverts throughout its jurisdiction.
Action Number:	
Peq-8	
Location (address, lat/long)	Multiple Locations
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Pequea Township	The Township will conduct outreach to property owners along the Pequea Creek to identify whether they have incurred property damage from flooding associated with the Pequea Creek. The Township will develop a list of property owners which may be interested in flood mitigation measures, included elevation or acquisition.
Action Number:	
Peq-9	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	FPA
Support Agency(ies)/ Department(s)	Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Pequea Township	The Township will work with local NGOs, churches, and other community locations to provide information relating to hazard mitigation and preparedness geared toward the readiness of individuals, the community as a whole, and properties.
Action Number:	
Peq-10	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	local NGOs, churches, and other community locations
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Pequea Township	The Township will take a variety of actions to reduce the risk to the wildfire hazard in the interface and intermix areas: 1. Educate property and business owners how to mitigate risk, including managing vegetation, keeping yards clear, ensuring there is enough boundary between the wooded or forested areas and their property. 2. Ensure Township employees (DPW, Fire Services) maintain the wooded or forested areas by clearing and maintaining ground vegetation and utilizing prescribed burns when and where appropriate. 3. Consider joining the Firewise Program, which teaches people how to adapt to living with wildfire and encourages neighbors to work together and take action now to prevent losses. 4. Write and adopt a Community Wildfire Protection Plan which would provide a framework for mitigating wildland fire impacts throughout the Township.
Action Number:	
Peq-11	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	Wildfire
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	DPW, Township Administration
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Pequea Township **Action Number:** Peq-12	The Township will conduct research into other avenues for water supplies and will consider the following strategies: 1. Prioritizing investment in water infrastructure by developing and maintaining water harvesting structures, and building new water systems, storage tanks, and treatment facilities while fostering community engagement. 2. Promoting the protection of watersheds and ensuring sustainable groundwater extraction. 3. Empower the community with the knowledge and skills to manage their water resources by providing educational programs on how to improve their current water management practices ad become more sustainable. 4. Enforce standards for water quality, promote efficient water use, and incentivize conservation efforts. 5. Leverage technology to improve water management systems, including solar-powered pumps, remote sensing for monitoring water levels, and mobile applications for reporting issues can enhance water access and management.
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Drought, Utility Interruption, Wildfire
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Township Administration
Support Agency(ies)/ Department(s)	Engineer, DPW, FPA
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Quarryville Borough	The Municipal Building, a critical facility, houses the Borough Administrative Offices, Police Department, and Public Works Department. The building has no back-up power in order to support continuity of operations in the event of an emergency. An engineer scoped that the building would require a 102-kW generator, priced at $55,000.
Action Number:	
QVB-1	
Location (address, lat/long)	Municipal Building
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams; Tornado/Windstorm; Utility Interruption; Winter Storm; Cyber Incident
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; RACP; Operating Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Quarryville Borough	The culvert located on Broad Street at the intersection of Second Street is deteriorating due to heavy rains and erosion. The culvert, and guiderail which protects it, must be improved. An engineer estimated the cost of this project would be $425,000.
Action Number:	
QVB-2	
Location (address, lat/long)	Broad Street, Second Street
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; Multimodal Transportation Fund; Operating Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Rapho Township	Protect Wastewater Pump #55 to the 0.2% annual chance flood level.
Action Number:	
RapT-1	
Location (address, lat/long)	40.110325, -76.453067
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Rapho Township	Regularly clear obstructions from waterways.
Action Number:	
RapT-2	
Location (address, lat/long)	N/A
Mitigation Technique Category	Natural Systems Protection (NSP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Rapho Township	Protect Kauffman's Distillery Bridge to the 0.2% annual chance flood level.
Action Number:	
RapT-3	
Location (address, lat/long)	40.14828573, -76.40991235
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Rapho Township	Protect Peter and Elisabeth Lindemuth House to the 0.2% annual chance flood level.
Action Number:	
RapT-4	
Location (address, lat/long)	40.10359074, -76.49147864
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Rapho Township	Protect Pfoutz Mill to the 0.2% annual chance flood level.
Action Number:	
RapT-5	
Location (address, lat/long)	40.06937027, -76.49948267
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Rapho Township	Protect Peter and Mary Risser House to the 0.2% annual chance flood level.
Action Number:	
RapT-6	
Location (address, lat/long)	40.07015997, -76.49998448
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Rapho Township	Protect Schenck's Mill Bridge to the 0.2% annual chance flood level.
Action Number:	
RapT-7	
Location (address, lat/long)	40.11569554, -76.42511307
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Rapho Township	Protect Seigrist's Mill Covered Bridge to the 0.2% annual chance flood level.
Action Number:	
RapT-8	
Location (address, lat/long)	40.07611786, -76.47095496
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Sadsbury Township	Mt. Vernon Road Runoff Retention Basins - Create two retention basins, redirect catch basin pipes, install a storm drain line, and extend approximately 1/3 mile to relieve runoff into the Christiana Borough watershed.
Action Number:	
SadT-1	
Location (address, lat/long)	Mt. Vernon Road
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Muncipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Sadsbury Township	Protect Forge Ruins to the 0.2% annual chance flood level.
Action Number:	
SadT-2	
Location (address, lat/long)	39.91248204, -75.99575038
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Sadsbury Township	Protect Mercer's Mill Covered Bridge to the 0.2% annual chance flood level.
Action Number:	
SadT-3	
Location (address, lat/long)	39.93146131, -75.98164283
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Sadsbury Township	Protect Sadsbury Twp Detention Pond 1 to the 0.2% annual chance flood level.
Action Number:	
SadT-4	
Location (address, lat/long)	39.97083333, -76.00694444
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Sadsbury Township	Protect Woolen Mill to the 0.2% annual chance flood level.
Action Number:	
SadT-5	
Location (address, lat/long)	39.90866211, -75.9975986
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Sadsbury Township	Create a shoulder to catch water runoff. This runoff will be released into a culvert instead of puddling along Creek and Noble Roads. Work performed by Township Public Works Department.
Action Number:	
SadT-6	
Location (address, lat/long)	Creek Road, Noble Road
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Engineer
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Sadsbury Township	Restore RT 41 Williams Run dam to its normal operating conditions by repairing damage to the pipe and dam embankment during dry conditions. A DEP Permit has been received. The Township will work with the company Land Studies to be sure the project is completed in a timely manner and in compliance with all agencies.
Action Number:	
SadT-7	
Location (address, lat/long)	Williams Run Dam
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam; Dam Failure
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	DPW; Dam Owner
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Salisbury Township	Protect Meadow Springs Amish School to the 0.2% annual chance flood level.
Action Number:	
SalT-1	
Location (address, lat/long)	40.00230821, -76.01472609
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Salisbury Township	Protect Millwood Kennel to the 0.2% annual chance flood level.
Action Number:	
SalT-2	
Location (address, lat/long)	40.02041447, -76.01862461
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Salisbury Township	Protect New Miltown Roller Mill to the 0.2% annual chance flood level.
Action Number:	
SalT-3	
Location (address, lat/long)	40.0175, -76.05055556
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Salisbury Township	Protect Verdant Valley Amish School to the 0.2% annual chance flood level.
Action Number:	
SalT-4	
Location (address, lat/long)	40.06077473, -75.96131333
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Strasburg Borough	Protect Wastewater Pump #13 to the 0.2% annual chance flood level.
Action Number:	
StrasB-1	
Location (address, lat/long)	39.989648, -76.217691
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Strasburg Township	Protect Bowman's Mill to the 0.2% annual chance flood level.
Action Number:	
StrasT-1	
Location (address, lat/long)	39.9785563, -76.22513768
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Strasburg Township	Protect Herr's Mill Covered Bridge to the 0.2% annual chance flood level.
Action Number:	
StrasT-2	
Location (address, lat/long)	40.00957583, -76.16206007
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Strasburg Township	Protect Lefever Mill to the 0.2% annual chance flood level.
Action Number:	
StrasT-3	
Location (address, lat/long)	39.98674333, -76.21608883
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Strasburg Township	Protect Lime Valley Bridge to the 0.2% annual chance flood level.
Action Number:	
StrasT-4	
Location (address, lat/long)	39.96064233, -76.23492798
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Strasburg Township	Protect Neff's Mill Covered Bridge to the 0.2% annual chance flood level.
Action Number:	
StrasT-5	
Location (address, lat/long)	39.97862866, -76.22576059
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Strasburg Township	Protect Wastewater Pump #13 to the 0.2% annual chance flood level.
Action Number:	
StrasT-6	
Location (address, lat/long)	39.989648, -76.217691
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Upper Leacock Township	Protect Bushong Mill and House to the 0.2% annual chance flood level.
Action Number:	
ULT-1	
Location (address, lat/long)	40.10458524, -76.23722103
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Upper Leacock Township	Protect Pinetown Covered Bridge to the 0.2% annual chance flood level.
Action Number:	
ULT-2	
Location (address, lat/long)	40.10567317, -76.24826551
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Upper Leacock Township	Protect Stauffer's Mill to the 0.2% annual chance flood level.
Action Number:	
ULT-3	
Location (address, lat/long)	40.05295621, -76.19192321
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Upper Leacock Township	Protect Worley and Obetz, Inc. to the 0.2% annual chance flood level.
Action Number:	
ULT-4	
Location (address, lat/long)	40.10258, -76.23315
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Upper Leacock Township	Protect Center Square Amish School to the 0.2% annual chance flood level.
Action Number:	
ULT-5	
Location (address, lat/long)	40.10532152, -76.23671967
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Upper Leacock Township	Protect H & E Sheibly House to the 0.2% annual chance flood level.
Action Number:	
ULT-6	
Location (address, lat/long)	40.10685127, -76.23687192
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Warwick Township	Protect Wastewater Pump #67 to the 0.2% annual chance flood level.
Action Number:	
WarT-1	
Location (address, lat/long)	40.148155, -76.271203
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Warwick Township	Protect Well #35 to the 0.2% annual chance flood level.
Action Number:	
WarT-2	
Location (address, lat/long)	40.156868, -76.284404
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Warwick Township	Replace the Lititz Run culvert under Lititz Run Road with one with a larger opening.
Action Number:	
WarT-3	
Location (address, lat/long)	40.153805, -76.286345
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Warwick Township	Protect Lititz Grist Mill to the 0.2% annual chance flood level.
Action Number:	
WarT-4	
Location (address, lat/long)	40.15431986, -76.286779
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Warwick Township	Protect Erb's Bridge to the 0.2% annual chance flood level.
Action Number:	
WarT-5	
Location (address, lat/long)	40.16775817, -76.24390275
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Warwick Township	Protect Hess Lower to the 0.2% annual chance flood level.
Action Number:	
WarT-6	
Location (address, lat/long)	40.15416667, -76.28638889
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Warwick Township	Protect Rothsville Mill to the 0.2% annual chance flood level.
Action Number:	
WarT-7	
Location (address, lat/long)	40.14779811, -76.27203315
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Warwick Township	Protect Marathon Gas Station to the 0.2% annual chance flood level.
Action Number:	
WarT-8	
Location (address, lat/long)	40.168648, -76.307934
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Warwick Township	Protect Zook's Mill Covered Bridge to the 0.2% annual chance flood level.
Action Number:	
WarT-9	
Location (address, lat/long)	40.13032355, -76.23142181
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Warwick Township	Identify capacity and needs for emergency generators and transfer switches at the Water Treatment Plant and Wastewater Treatment Plant. Apply for grants and appropriate funding where possible. After purchase, install and maintain generators.
Action Number:	
WarT-10	
Location (address, lat/long)	Water Treatment Plant and Wastewater Treatment Plant
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams; Tornado/Windstorm; Utility Interruption; Winter Storm; Cyber Incident
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; RACP; Operating Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Warwick Township	Ensure that during severe storms conditions are monitored, including roadways, water and flood gauges, and local reports are reviewed.
Action Number:	
WarT-11	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Low
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	PD, FD
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
Warwick Township	Educate the public on the functionality and use of the Regroup application. Encourage the public to sign up for emergency alerts and notifications.
Action Number:	
WarT-12	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	County
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Cocalico Township	Expand intersection of Sandy Hill Road and Hillside Road.
Action Number:	
WCT-1	
Location (address, lat/long)	40.246795, -76.199238
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Environmental Hazards; Transportation Accidents
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	Capital Improvement Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Cocalico Township	Improve drainage at the culvert at Sportsman Road east of Hickory Road.
Action Number:	
WCT-2	
Location (address, lat/long)	40.273088, -76.179289
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Cocalico Township	Increase length of Hackman Road bridge to provide more water to flow underneath it.
Action Number:	
WCT-3	
Location (address, lat/long)	Hackman Road bridge
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Cocalico Township	Increase length of Hickory Road bridge to provide more water to flow underneath it.
Action Number:	
WCT-4	
Location (address, lat/long)	Hickory Road bridge
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Cocalico Township	Increase length of Indiantown Road bridge to provide more water to flow underneath it.
Action Number:	
WCT-5	
Location (address, lat/long)	Indiantown Road bridge
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Cocalico Township	Install backup power generators at two potable water wells.
Action Number:	
WCT-6	
Location (address, lat/long)	Multiple Locations
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Utility Interruption
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Water Fees; RACP
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Cocalico Township	Install stormwater management infrastructure along Blue Lake Road to prevent downhill flooding.
Action Number:	
WCT-7	
Location (address, lat/long)	Blue Lake Road
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Cocalico Township	Install stormwater management infrastructure along Girl Scout Road to prevent downhill flooding.
Action Number:	
WCT-8	
Location (address, lat/long)	Girl Scout Road
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Cocalico Township	Install stormwater management infrastructure along Mountain Road to prevent downhill flooding.
Action Number:	
WCT-9	
Location (address, lat/long)	Mountain Road
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Cocalico Township	Install stormwater management infrastructure along Netzley Road to prevent downhill flooding.
Action Number:	
WCT-10	
Location (address, lat/long)	Netzley Road
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Cocalico Township	Install stormwater management infrastructure along Sandy Hill Road to prevent downhill flooding.
Action Number:	
WCT-11	
Location (address, lat/long)	Sandy Hill Road
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Cocalico Township	Install stormwater management infrastructure along Strickler Road to prevent downhill flooding.
Action Number:	
WCT-12	
Location (address, lat/long)	Strickler Road
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Cocalico Township	Install stormwater management infrastructure along White Hall Road to prevent downhill flooding.
Action Number:	
WCT-13	
Location (address, lat/long)	White Hall Road
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Cocalico Township	Relocate the Wastewater Treatment Plant to a location outside the floodplain.
Action Number:	
WCT-14	
Location (address, lat/long)	40.263798, -76.119579
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Cocalico Township	Renovate the stormwater management system in Reinholds.
Action Number:	
WCT-15	
Location (address, lat/long)	Reinholds
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Cocalico Township	Upgrade and clear obstructions in the drainage system at the Cocalico Creek at Hickory Road.
Action Number:	
WCT-16	
Location (address, lat/long)	40.274314, -76.184533
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Cocalico Township	Upgrade the bridge on Sportsman Road over the Cocalico Creek to allow more water to flow underneath it.
Action Number:	
WCT-17	
Location (address, lat/long)	40.275224, -76.170005
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Long
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Cocalico Township	Upgrade the drainage system at the Cocalico Creek at Pineview Drive, and elevate the bridge approach.
Action Number:	
WCT-18	
Location (address, lat/long)	40.273088, -76.179289
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Cocalico Township	Protect Binkley's Mill to the 0.2% annual chance flood level.
Action Number:	
WCT-19	
Location (address, lat/long)	40.27455357, -76.10767077
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
West Cocalico Township	Protect Windstream Reinholds Central Office to the 0.2% annual chance flood level.
Action Number:	
WCT-20	
Location (address, lat/long)	40.26690993, -76.12037377
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Cocalico Township **Action Number:** WCT-21	The Municipal Engineer will work with Randy Shirk to complete an engineering study of Barnett Dam. The Township will also request information and input from its Public Works department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and Randy Shirk will pursue funding support, permit approval from PADEP, and implement the cost-effective measures.
Location (address, lat/long)	Barnett Dam
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Dam Failure; Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA BRIC, HHPD
Timeline	Short
Lead Agency/Department	Randy Shirk
Support Agency(ies)/ Department(s)	County Engineer, County EMA, PADEP, Municipal Engineer
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Donegal Township	Protect the Elizabethtown Regional Sewer Authority WWTP to the 0.2% annual chance flood level.
Action Number:	
WDT-1	
Location (address, lat/long)	40.129705, -76.624852
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Donegal Township	Protect Wastewater Pump #197 to the 0.2% annual chance flood level.
Action Number:	
WDT-2	
Location (address, lat/long)	40.113232, -76.626272
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Donegal Township	The culvert on Miller Road near the Elizabethtown Regional Sewer Authority needs to be evaluated and improved as it may be undersized or have failing components which are located underground. When funding and staffing is available, the Township will address the culvert issues. If possible, the Township will assess the feasibility of hiring external contractors. The Township will continue its assessment of the integrity and replacement schedule of the culverts throughout its jurisdiction.
Action Number:	
WDT-3	
Location (address, lat/long)	Miller Road near the Elizabethtown Regional Sewer Authority
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	DPW
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Earl Township	Protect the West Earl Township Sewer Authority WWTP to the 0.2% annual chance flood level.
Action Number:	
WET-1	
Location (address, lat/long)	40.123595, -76.203576
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Earl Township	Protect the West Earl Township Water Authority facility to the 0.2% annual chance flood level.
Action Number:	
WET-2	
Location (address, lat/long)	40.131382, -76.19831
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Earl Township	Protect Wastewater Pump #184 to the 0.2% annual chance flood level.
Action Number:	
WET-3	
Location (address, lat/long)	40.121273, -76.234753
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Earl Township	Protect Bitzer's Mill Bridge to the 0.2% annual chance flood level.
Action Number:	
WET-4	
Location (address, lat/long)	40.14038955, -76.1519368
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
West Earl Township	Protect Cooper Shop at Brownstown Mill to the 0.2% annual chance flood level.
Action Number:	
WET-5	
Location (address, lat/long)	40.12808145, -76.1987786
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Earl Township	Protect Eberlys Mill to the 0.2% annual chance flood level.
Action Number:	
WET-6	
Location (address, lat/long)	40.14111111, -76.15083333
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Earl Township	Protect Riverview School to the 0.2% annual chance flood level.
Action Number:	
WET-7	
Location (address, lat/long)	40.11829292, -76.21542216
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Earl Township	Protect Widow Wenger's House to the 0.2% annual chance flood level.
Action Number:	
WET-8	
Location (address, lat/long)	40.13634185, -76.17320356
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Earl Township	Protect American LaFrance, LLC to the 0.2% annual chance flood level.
Action Number:	
WET-9	
Location (address, lat/long)	40.14315, -76.2142
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
West Earl Township	Protect Jacob Wolf House to the 0.2% annual chance flood level.
Action Number:	
WET-10	
Location (address, lat/long)	40.12761597, -76.19859254
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
West Earl Township	Protect Martin-Bitzer House to the 0.2% annual chance flood level.
Action Number:	
WET-11	
Location (address, lat/long)	40.14178245, -76.15115627
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Earl Township	Protect Marx and Fronic Groff Farmstead to the 0.2% annual chance flood level.
Action Number:	
WET-12	
Location (address, lat/long)	40.1355943, -76.16370498
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
West Earl Township	Protect Samuel Good House to the 0.2% annual chance flood level.
Action Number:	
WET-13	
Location (address, lat/long)	40.14460634, -76.17376702
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Earl Township	Protect Smeal LTC, LLC. to the 0.2% annual chance flood level.
Action Number:	
WET-14	
Location (address, lat/long)	40.1418, -76.2145
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Earl Township	Identify a suitable location for a back-up Administrative building where continuity of operations can occur should the primary facility become impacted. Identify a plan for Township employees to work remotely if needed.
Action Number:	
WET-15	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Cyber Incidents, Earthquake, Hailstorms, Tornado/Windstorm, Utility Interruption, Wildfire, Winter Storm
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA HMGP, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Township Administration
Support Agency(ies)/ Department(s)	Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Earl Township	Road conditions in the winter can be treacherous to drivers. Create a winter road maintenance plan to specify when Public Works should begin road treatments and plowing activities.
Action Number:	
WET-16	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Winter Storm, Transportation Accidents
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
West Earl Township	Evaluate flood mitigation measures, including property acquisitions and flood walls, at the trailer park to reduce, or remove, the risk of flooding.
Action Number:	
WET-17	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC, FMA; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	Floodplain Administrator
Support Agency(ies)/ Department(s)	Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
West Hempfield Township	Protect Chickies Lock to the 0.2% annual chance flood level.
Action Number:	
WHT-1	
Location (address, lat/long)	40.05496284, -76.52666909
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
West Hempfield Township	Protect Forrey's Mill Covered Bridge to the 0.2% annual chance flood level.
Action Number:	
WHT-2	
Location (address, lat/long)	40.06646086, -76.47811475
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
West Hempfield Township	Protect S.S. Haldeman Mansion site to the 0.2% annual chance flood level.
Action Number:	
WHT-3	
Location (address, lat/long)	40.05359558, -76.52533279
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Hempfield Township	Protect Lancaster Area Sewer Auth - Farmdale Pump Station to the 0.2% annual chance flood level.
Action Number:	
WHT-4	
Location (address, lat/long)	40.066369, -76.477133
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget; Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Hempfield Township	Protect Pedant-Grube Farmhouse (Garber Farm) to the 0.2% annual chance flood level.
Action Number:	
WHT-5	
Location (address, lat/long)	40.107491, -76.44355014
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Hempfield Township	Protect Columbia Water Co Chickies Well to the 0.2% annual chance flood level.
Action Number:	
WHT-6	
Location (address, lat/long)	40.054252, -76.525197
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Hempfield Township	Protect Henry Clay Furnace Ruins to the 0.2% annual chance flood level.
Action Number:	
WHT-7	
Location (address, lat/long)	40.04937581, -76.5219617
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
West Hempfield Township	Protect Chickies Silica Stone Crusher to the 0.2% annual chance flood level.
Action Number:	
WHT-8	
Location (address, lat/long)	40.05018391, -76.52336635
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	**Action**
West Hempfield Township	Work with EMC and Township manager/mayor to orient the new EMC to current projects and status of emergency items.
Action Number:	
WHT-9	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Township Manager
Support Agency(ies)/ Department(s)	Mayor, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Hempfield Township	The EMC will work with teams that manage borough social media to include EM and preparedness communications. EMC will assist in community programs and outreach as available.
Action Number:	
WHT-10	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Municipal EMC
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Lampeter Township	Improve drainage along Eckman Road.
Action Number:	
WLT-1	
Location (address, lat/long)	Eckman Road
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Lampeter Township	Improve stormwater management along Gypsy Hill Road, including installing a culvert to discharge water away from homes.
Action Number:	
WLT-2	
Location (address, lat/long)	Gypsy Hill Road
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	$30,000
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Lampeter Township	Improve stormwater management along Hollinger Road.
Action Number:	
WLT-3	
Location (address, lat/long)	Hollinger Road
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Capital Improvement Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Lampeter Township	McFalls Property Stormwater Management - reclaim the area as a stream.
Action Number:	
WLT-4	
Location (address, lat/long)	
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	$500,000
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Long
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Lampeter Township	Protect Potable Pump #100 to the 0.2% annual chance flood level.
Action Number:	
WLT-5	
Location (address, lat/long)	40.002164, -76.292968
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Lampeter Township	Protect Potable Pump #61 to the 0.2% annual chance flood level.
Action Number:	
WLT-6	
Location (address, lat/long)	40.025824, -76.27407
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; User Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Lampeter Township	Protect Wastewater Pump #21 to the 0.2% annual chance flood level.
Action Number:	
WLT-7	
Location (address, lat/long)	40.007054, -76.267924
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP, Sewer Grant; Sewer Fees
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Lampeter Township	Retention Pond - Construct retention ponds to protect properties along Hollinger Road.
Action Number:	
WLT-8	
Location (address, lat/long)	Hollinger Road
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams
Priority (High, Medium, Low)	Low
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, PDM, FMA; PA DCED FMP; Operating Budget
Timeline	Short
Lead Agency/Department	DPW
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Lampeter Township	Protect Colonial Metals Company to the 0.2% annual chance flood level.
Action Number:	
WLT-9	
Location (address, lat/long)	40.0202, -76.3026
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Lampeter Township	Protect Extrusion Division to the 0.2% annual chance flood level.
Action Number:	
WLT-10	
Location (address, lat/long)	40.0214, -76.2551
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Lampeter Township	Protect Herr or Graff House and Mill to the 0.2% annual chance flood level.
Action Number:	
WLT-11	
Location (address, lat/long)	40.00265786, -76.29405506
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Lampeter Township	Protect George and Susanna Lefevre Mill to the 0.2% annual chance flood level.
Action Number:	
WLT-12	
Location (address, lat/long)	39.96145397, -76.23360899
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Lampeter Township	Protect Lime Valley Covered Bridge to the 0.2% annual chance flood level.
Action Number:	
WLT-13	
Location (address, lat/long)	39.96066315, -76.23491909
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Lampeter Township	Protect Mill Creek Bridge #8 to the 0.2% annual chance flood level.
Action Number:	
WLT-14	
Location (address, lat/long)	40.01009629, -76.27743421
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Lampeter Township	Protect Eckman Mill to the 0.2% annual chance flood level.
Action Number:	
WLT-15	
Location (address, lat/long)	40.005, -76.3
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Lampeter Township	Protect Reservoir #17 to the 0.2% annual chance flood level.
Action Number:	
WLT-16	
Location (address, lat/long)	40.002192, -76.292958
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Lampeter Township	Protect Henry K. Stoner House to the 0.2% annual chance flood level.
Action Number:	
WLT-17	
Location (address, lat/long)	40.00894847, -76.26638386
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; PA DCED FMP; HPF; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
West Lampeter Township	Protect Mill Creek Pump Station to the 0.2% annual chance flood level.
Action Number:	
WLT-18	
Location (address, lat/long)	40.006959, -76.267965
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jam
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	FPA, Municipal EMC
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Bainbridge Water Authority	Update the Authority's emergency response plan.
Action Number:	
BWA-1	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	Office Manager
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Bainbridge Water Authority	Explore the needs to purchase and install a three-phased emergency generator.
Action Number:	
BWA-2	
Location (address, lat/long)	145 Chestnut St, Bainbridge, PA 17502
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, and Ice Jams; Tornado/Windstorm; Utility Interruption; Winter Storm; Cyber Incident
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; RACP; Operating Budget
Timeline	Short
Lead Agency/Department	Engineer
Support Agency(ies)/ Department(s)	Office Manager
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Bainbridge Water Authority	Institute mandate for employees driving company vehicles to supply proof of insurance.
Action Number:	
BWA-3	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Transportation Accident
Priority (High, Medium, Low)	Low
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	Office Manager
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Bainbridge Water Authority	Investigate new platforms of communication to support public outreach. Additionally, identify and advertise methods of communication for the public to contact the Authority.
Action Number:	
BWA-4	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Terrorism; Cyber Incidents; Utility Interruption
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Office Manager
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Cocalico School District	Work with local experts to develop training opportunities for staff that align with the district's EOP.
Action Number:	
CSD-1	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Earthquake; Hailstorms; Tornado/Windstorm; Utility Interruption; Wildfire; Winter Storm; Flood, Flash Flood, Ice Jam
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Assistant to the Superintendent
Support Agency(ies)/ Department(s)	Superintendent, County EM
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Cocalico School District	Work with emergency management to secure supplies as necessary if a prolonged stay is required due to an inability to relocate to another site with better/more equipped resources and facilities.
Action Number:	
CSD-2	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Earthquake; Hailstorms; Tornado/Windstorm; Utility Interruption; Wildfire; Winter Storm; Flood, Flash Flood, Ice Jam
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget, County Budget
Timeline	Short
Lead Agency/Department	Assistant to the Superintendent
Support Agency(ies)/ Department(s)	Superintendent, County EM
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Columbia Borough School District	The school district will work with county or local officials to ensure staff and employees are educated on hazard types and associated risks.
Action Number:	
CBSD-1	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget, County Budget, Local Jurisdiction Budget
Timeline	Short
Lead Agency/Department	Superintendent
Support Agency(ies)/ Department(s)	County EM, Local EM
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Conestoga Valley School District	The school district will work with county or local officials to ensure staff and employees are educated on hazard types and associated risks.
Action Number:	
CVSD-1	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget, County Budget, Local Jurisdiction Budget
Timeline	Short
Lead Agency/Department	Superintendent
Support Agency(ies)/ Department(s)	County EM, Local EM
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Cocalico Township Water and Sewer Authority **Action Number:** ECTA-1	Most ECTA customer meters are read on a quarterly basis using drive-by "radio read" technology. A fixed-base metering system with remote read technology would create a more efficient reading and notification system in which ECTA would have real-time notification of excess water use or meter failure that would increase the speed at which ECTA can respond. The response would include faster customer communication and enforcement during severe drought or other water shortage emergency. Cost = $1,300,000, including installation, for ECTA's full system. ECTA plans to begin replacements, as needed, in a phased approach in 2025.
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Drought; Utility Interruption
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA BRIC; Operating Budget
Timeline	Long
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Cocalico Township Water and Sewer Authority **Action Number:** ECTA-2	Purchase of an additional backup power source would give ECTA the capability to power two groundwater wells and the ability to better meet demand, in the event of a widespread power outage. A generator meeting the following specifications would be appropriately sized to power any well in ECTA's system: • 3-phase • 208/480 V • 110 kW • 300A/150A Based on a recent purchase of similar scope, cost = $100,000, including trailer to mobilize the generator.
Location (address, lat/long)	102 Hill Rd, Denver, PA 17517
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Tornado, Windstorm; Utility Interruption; Winter Storm; Hailstorms
Priority (High, Medium, Low)	High
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; RACP; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Cocalico Township Water and Sewer Authority	ECTA neighbors three other municipal water systems. An emergency interconnect with any of these three systems, would provide ECTA the ability to continue serving its customers while working towards bringing a well source back online. Cost = $1,000,000.
Action Number:	
ECTA-3	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Earthquake; Hazardous Materials Release; Subsidence, Sinkhole; Utility Interruption
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	Neighboring Utility Authorities
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
East Cocalico Township Water and Sewer Authority	If a groundwater well is classified as GUDI, a treatment upgrade is required including more advanced filtering and disinfection. Most of ECTA's well sources would also require facility expansion to make room for the upgraded treatment. Cost would be dependent on the source well capacity, but a recent comparable upgrade is estimated at $3,000,000.
Action Number:	
ECTA-4	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Subsidence, Sinkhole
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; Operating Budget
Timeline	Short
Lead Agency/Department	Facility Owner
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Elizabethtown Area School District	Searching the student management system for the past three school years, student discipline for illicit substance/vaping violations is on the rise. Over the past two years the School District has called 911 three times for students experiencing medical issues suspected to be caused due to vaping illicit substances. Install vape detectors in the High School and Middle School sixteen restrooms. With a cost of about $4000 per unit, the total cost would be about $64,000.
Action Number:	
ETASD-1	
Location (address, lat/long)	Elizabethtown Area School District
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Substance Abuse Disorder and Mental Illness
Priority (High, Medium, Low)	Low
Estimated Cost	Medium
Potential Funding Streams	SAMHSA; USDHHS Grants; Operating Budget
Timeline	Short
Lead Agency/Department	Superintendent
Support Agency(ies)/ Department(s)	Maintenance Staff
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Ephrata Area School District	Students are experiencing higher levels of mental illness in the community. The School District will contribute to address mental health concerns by increasing support through reporting systems, school counseling availability, family referral to outside support, and access to outside counseling during school hours and on school property.
Action Number:	
EASD-1	
Location (address, lat/long)	Ephrata Area School District
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Substance Abuse Disorder and Mental Illness
Priority (High, Medium, Low)	Low
Estimated Cost	Medium
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	School District Counseling
Support Agency(ies)/ Department(s)	Superintendent
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Ephrata Area School District	With the ongoing and anticipate increase in cyber incidents, including data infiltration, data corruption, and ransomware, the District week seek various methods to improve and update its technology security through network segmentation, multi0factor authorization, limited account privileges, and remote data back-ups.
Action Number:	
EASD-2	
Location (address, lat/long)	Ephrata Area School District
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Cyber Incident
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA BRIC; CISA; HSGP; Operating Budget
Timeline	Short
Lead Agency/Department	IT
Support Agency(ies)/ Department(s)	Superintendent
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Hempfield School District	Ensure runoff during construction at the High School at the Landisville Campus is monitored to reduce water runoff issues, including erosion. Locations which could be impacted include the high school campus, nearby parking lots, and the baseball fields.
Action Number:	
HSD-1	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Safety and Security Supervisor
Support Agency(ies)/ Department(s)	Superintendent
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Hempfield School District	Evaluate if the high school and administrative buildings need protective measures to reduce flooding impacts. Once evaluated, implement the identified measure(s).
Action Number:	
HSD-2	
Location (address, lat/long)	N/A
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood, Flash Flood, Ice Jam
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	Operating Budget; FEMA HMA
Timeline	Short
Lead Agency/Department	Safety and Security Supervisor
Support Agency(ies)/ Department(s)	Superintendent
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lampeter-Strasburg School District	The school district will work with county or local officials to ensure staff and employees are educated on hazard types and associated risks.
Action Number:	
LSSD-1	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget, County Budget, Local Jurisdiction Budget
Timeline	Short
Lead Agency/Department	Superintendent
Support Agency(ies)/ Department(s)	County EM, Local EM
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster Area Sewer Authority	The Emergency Response Plan is in need of an update. The previous edition of the plan was completed in 2020, and the format is outdated. Assess whether LASA has the capabilities to complete this plan update on its own. If not, research various funding streams, including the BRIC, HMGP, EMPG, and HSPG grants to provide assistance in completing and update of the Emergency Response Plan.
Action Number:	
LASA-1	
Location (address, lat/long)	N/A
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	Medium
Estimated Cost	Medium
Potential Funding Streams	FEMA BRIC, HMGP; EMPG; CISA; HSGP; Operating Budget
Timeline	Short
Lead Agency/Department	Executive Director
Support Agency(ies)/ Department(s)	Safety Officer
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster Area Sewer Authority **Action Number:** LASA-2	LASA will work with its engineers (internal or contracted) to determine the required load capacity of an emergency generator for its administrative building, located at 130 Centerville Road, Lancaster PA 17603. Once determined, LASA will install the generator with assistance from a contractor if required. This generator will ensure the critical facility can maintain its operations should an emergency or incident occur.
Location (address, lat/long)	130 Centerville Road, Lancaster PA 17603
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Cyber Incidents, Drought, Earthquake, Hailstorms, Terrorism, Tornado and Windstorm, Utility Interruption, Wildfire, Winter Storm
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; RACP; Operating Budget
Timeline	Short
Lead Agency/Department	Engineers
Support Agency(ies)/ Department(s)	Executive Director
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster Area Sewer Authority	LASA has completed a study to identify the required load capacity of a generator to be installed at the pump station located at 2705 Charlestown Road, Lancaster PA 17603. LASA will install the generator with assistance from a contractor if required. This generator will ensure the critical piece of infrastructure maintains operability should an emergency or incident occur.
Action Number:	
LASA-3	
Location (address, lat/long)	2705 Charlestown Road, Lancaster PA 17603
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Cyber Incidents, Drought, Earthquake, Hailstorms, Terrorism, Tornado and Windstorm, Utility Interruption, Wildfire, Winter Storm
Priority (High, Medium, Low)	High
Estimated Cost	Medium
Potential Funding Streams	FEMA HMPG, BRIC; RACP; Operating Budget
Timeline	Short
Lead Agency/Department	Engineers
Support Agency(ies)/ Department(s)	Executive Director
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster Area Sewer Authority	LASA will work with engineers, internal or contracted, to assess the feasibility of elevating or relocating it various pump stations from flood-prone locations. These pump stations frequently experience flooding conditions from the many waterways and waterbodies in Lancaster County. Elevating or relocating the pump stations will mitigate flood risk and prevent the utility from being interrupted. The identified pumpstations are located at: • Blue Rock 1-324 Blue Rock Rd. Washington Boro PA 17582 • Holland Hills- 204 Donnerville Rd Lancaster PA 17603 • Silver Spring- 830 Silver Spring Rd Silver Spring PA 17575 • Elizabeth Street- 8 Elizabeth St, Washington Boro PA 17582 • River Road-1850 Water Street Washington Boro PA 17582 • Eden Road- 1891 Eden Rd, Lancaster PA 17601 • Pleasure Road- 1401 Pleasure Rd Lancaster PA 17601
Action Number:	
LASA-4	
Location (address, lat/long)	Blue Rock 1-324 Blue Rock Rd. Washington Boro PA 17582 Holland Hills- 204 Donnerville Rd Lancaster PA 17603 Silver Spring- 830 Silver Spring Rd Silver Spring PA 17575 Elizabeth Street- 8 Elizabeth St, Washington Boro PA 17582 River Road-1850 Water Street Washington Boro PA 17582 Eden Road- 1891 Eden Rd, Lancaster PA 17601 Pleasure Road- 1401 Pleasure Rd Lancaster PA 17601
Mitigation Technique Category	Structure and Infrastructure Project (SIP)
Hazard(s) Addressed	Flood/Flash Flood/Ice Jams, Utility Interruption
Priority (High, Medium, Low)	Medium
Estimated Cost	High
Potential Funding Streams	FEMA HMPG, BRIC; RACP; Operating Budget
Timeline	Short
Lead Agency/Department	Engineers
Support Agency(ies)/ Department(s)	Executive Director
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster Area Sewer Authority	LASA has not created a professional-styled video for outreach, recruitment, and highlighting the organization's mission and operations. LASA is committed to superior wastewater management to protect the community, public health, and the environment. Its goals align with environmental protection and stewardship. The creation of this video will educate viewers on how LASA assists in mitigation efforts through its wastewater management practices. LASA will research professional film companies to assist in the production of a video dedicated to conducting outreach, recruitment, and highlighting the organization's mission and operations.
Action Number:	
LASA-5	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	Flood/Flash Flood/Ice Jams, Utility Interruption
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Executive Director
Support Agency(ies)/ Department(s)	Outreach Team
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster County Conservation District	The district will work with county or local officials to ensure staff and employees are educated on hazard types and associated risks.
Action Number:	
LCCD-1	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget, County Budget, Local Jurisdiction Budget
Timeline	Short
Lead Agency/Department	Director
Support Agency(ies)/ Department(s)	County EM, Local EM
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster School District	The school district will work with county or local officials to ensure staff and employees are educated on hazard types and associated risks.
Action Number:	
LSD-1	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget, County Budget, Local Jurisdiction Budget
Timeline	Short
Lead Agency/Department	Superintendent
Support Agency(ies)/ Department(s)	County EM, Local EM
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Lancaster-Lebanon Intermediate Unit	The agency will work with county or local officials to ensure staff and employees are educated on hazard types and associated risks.
Action Number:	
LLIU-1	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget, County Budget, Local Jurisdiction Budget
Timeline	Short
Lead Agency/Department	Administrator
Support Agency(ies)/ Department(s)	County EM, Local EM
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Penn Manor School District	The school district will work with county or local officials to ensure staff and employees are educated on hazard types and associated risks.
Action Number:	
PMSD-1	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget, County Budget, Local Jurisdiction Budget
Timeline	Short
Lead Agency/Department	Superintendent
Support Agency(ies)/ Department(s)	County EM, Local EM
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Solanco School District	The school district will work with county or local officials to ensure staff and employees are educated on hazard types and associated risks.
Action Number:	
SSD-1	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget, County Budget, Local Jurisdiction Budget
Timeline	Short
Lead Agency/Department	Superintendent
Support Agency(ies)/ Department(s)	County EM, Local EM
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Warwick School District	Sinkholes have previously formed within the grounds of the Warwick School District. Continue monitoring the property owned by the School District for any signs of sinkhole formation or activity.
Action Number:	
WSD-1	
Location (address, lat/long)	Warwick School District
Mitigation Technique Category	Local Plans and Regulations (LPR)
Hazard(s) Addressed	Subsidence, Sinkhole
Priority (High, Medium, Low)	Low
Estimated Cost	Low
Potential Funding Streams	Operating Budget
Timeline	Short
Lead Agency/Department	Maintenance
Support Agency(ies)/ Department(s)	N/A
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

Municipality(ies):	Action
Well Span Health	The system will work with county or local officials to ensure staff and employees are educated on hazard types and associated risks.
Action Number:	
WSH-1	
Location (address, lat/long)	N/A
Mitigation Technique Category	Education and Awareness Programs (EAP)
Hazard(s) Addressed	All Hazards
Priority (High, Medium, Low)	High
Estimated Cost	Low
Potential Funding Streams	Operating Budget, County Budget, Local Jurisdiction Budget
Timeline	Short
Lead Agency/Department	Director
Support Agency(ies)/ Department(s)	County EM, Local EM
Project Point of Contact	
Name	
Title	
Agency/Department	
Phone	
E-mail	

CRITICAL FACILITIES

This section describes critical facilities in Lancaster County, including essential facilities, transportation systems, lifeline utility systems, and high-potential loss facilities. Transportation systems include roadways, bridges, tunnels, airways, and waterways. Lifeline utility systems include potable water, wastewater, oil, natural gas, electric power facilities, and emergency communication systems.

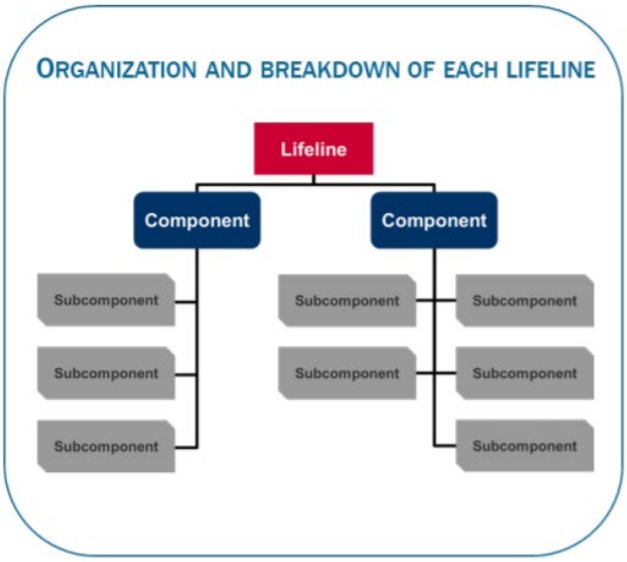
A comprehensive inventory of critical facilities in the County was developed from various sources including input from representatives of the Steering Committee, Lancaster County departments, and participating municipal departments. The inventory of critical facilities is considered confidential information. This section can be requested from the Lancaster County Department of Public Safety's Emergency Management Division (HMP@lancastercountypa.gov).

Critical facilities are those facilities considered critical to the health and welfare of the population, and that are especially important following a hazard. As defined for this HMP, critical facilities include essential facilities, transportation systems, lifeline utility systems, and high-potential loss facilities.

Essential facilities are a subset of critical facilities that include those facilities important to ensure full recovery following the occurrence of a hazard event. For the County risk assessment, this category was defined to include police, fire, Emergency Medical Services (EMS), schools, shelters, senior accommodations, and medical facilities.

CRITICAL FACILITIES AND COMMUNITY LIFELINES

The identification of community lifelines across Lancaster County provides an enhancement to the 2025 HMP. FEMA defines a lifeline as: *"providing indispensable service that enables the continuous operation of critical business and government functions, and is critical to human health and safety, or economic security."* Identifying community lifelines will help government officials and stakeholders to prioritize, sequence, and focus response efforts towards maintaining or restoring the most critical services and infrastructure within their respective jurisdiction(s). Identifying potential impacts to lifelines can help to inform the planning process and determining priorities in the event an emergency occur. According to FEMA, a community may have the following lifelines:



- Safety and Security
- Food, Hydration, Shelter
- Health and Medical
- Energy
- Communications
- Transportation
- Hazardous Materials
- Water Systems

Each lifeline category is comprised of multiple components and subcomponents that help define the services that make up that lifeline. The components FEMA describes for each lifeline are summarized by Table I-1.

Table I-1. FEMA Lifeline Categories and Components

Lifeline Category	Lifeline Components
Safety and Security	Law Enforcement/Security
	Fire Service
	Search and Rescue
	Government Service
	Community Safety
Food, Hydration, Shelter	Food
	Hydration
	Shelter
	Agriculture
Health and Medical	Medical Care
	Public Health
	Patient Movement
	Medical Supply Chain
	Fatality Management
Energy	Power Grid
	Fuel
Communications	Infrastructure
	Responder Communications
	Alerts, Warnings, and Messages
	Finance
	911 and Dispatch
Transportation	Highway/Roadway/Motor Vehicle
	Mass Transit
	Railway
	Aviation
	Maritime
Hazardous Material	Facilities
	HAZMAT, Pollutants, Contaminants
Water Systems	Potable Water Infrastructure
	Wastewater Management

Source: FEMA 2020