



LEHIGH VALLEY HAZARD MITIGATION PLAN



- Public Meeting
- July 10, 2018 @ 7:00 pm
- Catasauqua Municipal Building



COMMUNITY
ECONOMY
EDUCATION
DEVELOPMENT
PEOPLE + PLACES
TRANSPORTATION
RESOURCES
ENVIRONMENT
ORDINANCES + PLANS
RESEARCH + ANALYSIS
WATER
SEWER
UTILITIES
MAPS
COMMUNITY DESIGN
GROWTH MANAGEMENT
PROJECTIONS
HOUSING
PARKS + RECREATION
ARTS + CULTURE
FARMLAND PRESERVATION
HISTORIC PRESERVATION
OPEN SPACE





MULTIMODAL PLANNING
FUNDING
HAZARD MITIGATION
PEDESTRIANS + BICYCLES
SAFETY STUDIES
FREIGHT
AIR QUALITY
HIGHWAYS + BRIDGES
EQUITY + INCLUSION
TRAFFIC COUNTING
LOCAL TECHNICAL ASSISTANCE
IMPACT STUDIES
TRAVEL PLANNING
ENVIRONMENTAL JUSTICE
CORRIDOR STUDIES
LONG-RANGE PLANNING
COMMUNITY HEALTH
PUBLIC TRANSPORTATION
DATA COLLECTION
RESILIENCE
TRAVEL MODEL FORECASTING
TRANSIT-ORIENTED DEVELOPMENT
ASSET MANAGEMENT

What is Hazard Mitigation?

“A sustained action taken to reduce or eliminate the long-term risk to human life and property from hazards”

Mitigation helps to:

- Prevent injury and loss of life
- Reduce exposure to risk from hazards
- Prevent damage to community assets
- Reduce costs of disaster response/recovery



Why Hazard Mitigation Planning is Important

- A hazard mitigation plan is a community's long-term strategy to reduce disaster losses and break the cycle of disaster damage, reconstruction and repeated damage.
- Hazard mitigation planning is a proactive method designed to create safer, more disaster-resilient communities.
- For every \$1 dollar spent on mitigation projects, \$16 is saved from the impacts of a disaster. (Federal Emergency Management Agency)
- The Disaster Mitigation Act of 2000 requires local governments to have hazard mitigation plans updated and adopted on a 5-year cycle to be eligible for Federal hazard mitigation funding.



Hazards Profiled in 2013 and 2018 Lehigh Valley Plans

Natural Hazards:

- Drought
- Earthquake
- Extreme Temperature
- Flood, Flash Flood, Ice Jam
- Hailstorm
- Landslide
- Lightning Strike
- Radon Exposure
- Subsidence/Sinkhole
- Wildfire
- Windstorm/Tornado
- Winter Storm

Non-Natural Hazards:

- Civil Disturbance/Mass Gathering
- Dam Failure
- Environmental Hazards/Explosion
- Fire (Urban/Structural)
- Levee Failure
- Nuclear Incident
- Structural Collapse
- Terrorism
- Transportation Crash
- Utility Interruption



New Hazards Profiled in 2018 Lehigh Valley Plan

- Invasive Species (Spotted Lanternfly, Gypsy Moth, Hemlock Woolly Adelgid, Asian Tiger Mosquito and Emerald Ash Borer)
- Pandemic and Infectious Disease (Influenza, tick-borne, Zika and others)
- Drug Overdose Crisis (cocaine, heroin, opioids, fentanyl, others)



Plan Process

Risk Assessment

Assessing the risk is a process by which hazards of concern and the potential impacts of those hazards on Lehigh Valley communities are identified.

Capability Assessment

By reviewing a community's existing capabilities and resources, improvements can be identified to increase disaster resistance.



Plan Process (cont'd)

Mitigation Strategy

The mitigation strategy is made up of four components: mitigation goals, objectives and actions and an action plan for implementation. These provide the framework to identify, prioritize and implement actions to reduce risk to hazards.



2018 Lehigh Valley Plan Goals

Goal 1: To minimize the risk to human life associated with natural and non-natural hazards (NFIP).

OBJECTIVES:

- A. Create a better understanding among the public and local governments of the benefits and opportunities associated with hazard mitigation planning and actions.**
- B. Continuously promote and maintain better early warning and emergency communications.**
- C. Provide added protection for vulnerable populations.**



2018 Lehigh Valley Plan Goals (cont'd)

Goal 2: To promote hazard avoidance, especially in floodplains (NFIP).

OBJECTIVES:

- A. Minimize future risks of losses associated with structures, including repetitive loss structures.**
- B. Reduce flooding potential through planning, training and outreach.**
- C. Encourage and facilitate the development or revision of comprehensive plans and zoning/land use ordinances to limit development in high-hazard areas.**



2018 Lehigh Valley Plan Goals (cont'd)

Goal 3: To reduce the damages and functional loss from natural and non-natural hazards to existing and future public and private assets, including structures, critical facilities and infrastructure (NFIP).

OBJECTIVES:

- A. Identify the current risks of critical facilities and infrastructure from hazards, and determine actions to lessen those risks in the future.**
- B. Encourage and/or perform regular maintenance and upgrades of existing drainage systems potentially impacting critical facilities.**
- C. Encourage and/or provide backup power resources (generators) for critical facilities.**



2018 Lehigh Valley Plan Goals (cont'd)

Goal 4: To preserve and enhance the effectiveness of natural resources, including woodlands, streams, rivers, wetlands, floodplains and riparian buffers to provide resiliency benefits (NFIP).

OBJECTIVES:

- A. Encourage and/or provide maintenance and restoration of streams and rivers and associated floodplains to naturally provide flood mitigation.**
- B. Encourage regulation of and/or regulate development in priority conservation areas, including floodplains, to minimize flood damage.**



2018 Lehigh Valley Plan Goals (cont'd)

Goal 5: To develop, prioritize and implement cost-effective, long term actions that will reduce the impacts of natural and non-natural hazards (NFIP).

OBJECTIVES:

- A. Thoroughly assess the community and established capabilities and identify specific cost-effective actions for improvement, relative to existing and future hazard risks.**
- B. Establish mitigation action priorities and encourage and track progress.**



2018 Lehigh Valley Plan Goals (cont'd)

Goal 6: To improve local regulations to reduce the impacts of natural and non-natural hazards (NFIP).

OBJECTIVES:

- A. Better integrate hazard mitigation planning with comprehensive planning and land use regulations.**
- B. Identify and promote “best practices” for municipal regulation of land use in zoning and subdivision ordinances and official maps.**
- C. Encourage proactive planning for potential hazard events and potential related property damage.**
- D. Incorporate hazard mitigation planning into existing municipal policy.**



2018 Lehigh Valley Plan Goals (cont'd)

Goal 7: To enhance planning and emergency response efforts among federal, state, county and local emergency management personnel to protect public health and safety.

OBJECTIVES:

- A. Continually improve communication capabilities, training and coordination for hazard events.**
- B. Continually improve the planning for shelters, evacuation routes and disaster recovery.**
- C. Continue the promotion of disaster resiliency in the business community.**
- D. Maintain and/or upgrade emergency response equipment and resources.**



2018 Lehigh Valley Plan Goals (cont'd)

Goal 8: To promote public awareness on both the potential impacts of natural and non-natural hazards and actions to reduce those impacts (NFIP).

OBJECTIVES:

- A. Encourage and/or provide education and outreach to increase awareness of hazards and opportunities for mitigation.**
- B. Encourage and/or provide public education programs for businesses, households and individuals on mitigation, safety measures and preparedness.**



Types of Mitigation Actions

- Local planning and regulations, including:
 - Comprehensive plans
 - Subdivision and zoning ordinances
- Structure and infrastructure projects, including:
 - Acquisitions and elevation of structures, culverts
- Natural systems protection, including:
 - Stream corridor restoration
 - Wetland restoration and preservation
- Education and awareness programs, including:
 - Websites with maps and information
 - Mailings to residents
- National Flood Insurance Program compliance



Sample Actions for New Hazards

- Invasive Species:
 - Provide education and outreach to residents regarding how to prevent the spread of invasive species.
 - Develop a neighborhood cleanup plan designed to remove discarded tires, trash and other items in which standing water can form.
- Drug Overdose Crisis:
 - Provide training and education for first responders to ensure effective emergency care.
 - Provide education and outreach, especially in K-12, regarding drug abuse prevention.



Sample Actions for New Hazards (cont'd)

- Pandemic and Infectious Disease:
 - Coordinate with the County Emergency Management Agency and PA Department of Health.
 - Devise an employee vaccination and immunization plan.
 - Devise a municipal continuity of operations plan.
 - Devise a public education and outreach plan regarding disease prevention.



Hazard Mitigation Priorities

- 1. Improve the integration of hazard mitigation planning into existing plans, policies and programs, especially related to infrastructure and capital improvements programming.**
- 2. Identify more funding opportunities and improve the ability to compete for hazard mitigation project funding.**
- 3. Improve the thoroughness and consistency of hazard mitigation outreach to the public and business community across varied media and social media platforms.**
- 4. Begin implementation of the Community Rating System at the municipal level to strengthen a community's floodplain management program, resulting in the reduction of flood insurance rates.**
- 5. Commit to annual monitoring and updating of the hazard mitigation plan, as necessary, to ensure plan effectiveness and currency.**



Plan Update Timeline

- Coordinate with 62 local municipalities – ongoing
- Educate public about hazard mitigation – ongoing
 - Public meetings February 20, March 8, April 25 and July 10
- Draft Hazard Mitigation Plan – July 2018
- Draft plan public comment period – July 3, 2018 to August 3, 2018
- Review/approval by the Pennsylvania and Federal Emergency Management Agencies – September 2018
- Lehigh County, Northampton County and Municipal adoption of approved plan – October 10, 2018



Questions?

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