

SECTION 5: CAPABILITY ASSESSMENT

The capability assessment evaluates the capabilities and resources that are already in place in a community to reduce hazard risks. The capability assessment looks at the resources in place at the municipal, county, state and federal levels. The assessment also identifies where improvements can be made to increase disaster resistance in the community.

To help organize a description of hazard mitigation capabilities or resources, it is useful to first describe the basic approaches available to reduce hazard risks. According to the PEMA Hazard Mitigation Planning guide, there are six general approaches to reducing hazard risks. They include preventive measures, property protection, emergency service measures, structural projects, natural resource protection and public information. A brief description of each according to the PEMA guide is provided below.

- **Preventive measures** keep problems from getting started or getting worse and are typically administered through government programs or regulatory actions that influence the way land is developed and buildings are built. They are particularly effective in reducing a community's future vulnerability, especially in areas where development has not occurred or capital improvements have not been substantial. Examples of preventive measures are planning (including comprehensive planning), open space preservation or regulation (including zoning and building codes).
- **Property protection measures** involve the modification of existing buildings and structures to help them better withstand the forces of a hazard, or removal of the structures from hazardous locations. These measures include property acquisition, relocation of structures, building elevation and floodproofing. Insurance is also considered a property protection measure.
- **Emergency service measures** are taken during a disaster to minimize its impact. They include alert warning systems, monitoring systems, emergency response planning, evacuation and critical facilities protection.
- **Structural projects** are designed to reduce or redirect the impact of natural disasters (especially floods) away from at-risk populations. Examples include reservoirs, levees/floodwalls, channel modifications, storm sewers and diversions.
- **Natural resource protection** preserves or restores natural areas or their natural functions. Examples include wetland protection, riparian buffers, erosion and sediment control and riverine protection.
- **Public information programs** advise property owners, potential property owners and others of hazards and ways to protect people and property from them. Activities can include flood maps and data, library resources, outreach projects, technical assistance, real estate disclosure information and environmental education programs.

Capability assessments document the existing resources available to local communities to reduce hazard risks. Resources can be divided into five categories: human, physical, technical, informational and financial. For each basic capability or approach, there may be one or more of the five resources available to carry out the approach. A brief description of each resource according to the PEMA guide is provided below.

- **Human resources** include local police, fire, ambulance and emergency management and response personnel, local government operation and services, electric, gas and other utility providers that need to function during critical periods in disasters.
- **Physical resources** include the equipment and vehicles (such as emergency response and recovery equipment and vehicles), public lands, facilities and buildings available to the community.
- **Technical/technological resources** include early warning systems, weather alert radios, stream level monitoring gages and 911 communications systems. They also include technical requirements established by law, regulation or ordinance.
- **Informational resources** include materials about disasters and hazard mitigation and planning that is available from a wide variety of sources such as the internet, libraries and state and federal agencies.
- **Financial resources** identify the sources of funding available for hazard mitigation. Most state and federal grant programs require local communities to provide at least part of the necessary project funding in real dollars or through in-kind services. Local communities need to assess their financial capability and resources to implement hazard mitigation action plans.

This section describes and summarizes the federal, state, regional, county and local capabilities to address hazard risk in the Lehigh Valley. The comprehensive Capability Assessment section of the 2006 plan has been incorporated in this section in near totality, and updated as appropriate.

During this plan update process, Lehigh and Northampton counties and all 62 inclusive municipalities were surveyed to provide an updated assessment of their mitigation planning capabilities. Each municipality was provided a Capability Assessment Survey, based on the capability assessment survey provided as Appendix 3 of the Pennsylvania's All-Hazard Mitigation Planning Standard Operating Guide – October, 2010 (PA SOG). This survey was provided to each of the municipal planning points of contact prior to the municipal Kick-Off meetings, at the Kick-Off meetings, and further throughout the planning process as needed to promote broad municipal input.

Completed capability assessment surveys provided by the municipalities may be found in Appendix D.

County and municipal capabilities in the areas of planning and regulatory, administrative and technical, and fiscal may be found in their jurisdictional annexes in Section 9 in Tables E1, E2 and E3. The results of their mitigation capability self-assessment are summarized below in Section 5.8.

5.1 Emergency Management

5.1.1 County Capabilities

The Lehigh Valley is supported by strong regional and county-level emergency management capabilities provided by the Lehigh County Emergency Management Agency and Northampton County Emergency Management Services. As described in the 2006 Lehigh Valley HMP, both Lehigh and Northampton counties continue to operate emergency 9-1-1 call centers, and Emergency Operations Centers (EOCs) during emergencies in their counties. In addition, both counties continue to provide or support emergency service programs and measures including emergency response, public alert and warning systems, emergency communications systems, hazard event monitoring systems, and public information and outreach programs.

In January 2008, Northampton County underwent significant changes to its Emergency Management program and structure when the Northampton County Council approved a resolution to create the Division of Emergency Management Services. This newly established Division essentially combined Emergency Management and E-911 Communications under one operating structure.

NC EOC includes an Emergency Support Function 16 (ESF 16) Volunteers & Donations Management.

9-1-1 Centers

9-1-1 is the telephone number used to report emergencies, wherein there is the presence or potential for an immediate threat to life or property, and response by Police, Fire, and/or Emergency Medical Service Agencies. Examples include a crime which has just occurred or in-progress, odor or presence of fire, a sick or injured person requiring pre-hospital treatment and transportation to a hospital emergency department. The 9-1-1 System maintains the capability to accept calls from hearing or speech impaired callers utilizing a Telecommunications Device for the Deaf (TDD). Each county operates a 9-1-1 Public Safety Answering Point (PSAP), as do the Cities of Allentown and Bethlehem. These four PSAPs would need to coordinate efforts in a regional hazard event. Computerized mapping of streets with address information is critical for emergency response purposes. Opportunities exist to streamline the regional 9-1-1 coordination through development of fully-integrated and consistent mapping and databases.

Emergency Operations Centers (EOC)

In the event of an impending emergency or disaster, both Lehigh and Northampton counties would activate their EOCs. The purpose of the EOC is to manage the emergency response and coordinate the distribution of resources to a disaster incident. Highly trained and experienced personnel staff the EOC when it is activated and becomes operational. Capable individuals having the authority, flexibility, imagination and initiative needed to make command and coordination decisions (relative to their field of expertise) necessary during emergency operations are recruited. EOC staffing includes the following disciplines: Transportation, Firefighting, Communications/RACES, Public Works and Engineering, Emergency Management, Mass Care/Housing and Human Services, Resource Support, Public Health and Medical Services, Urban Search and Rescue, Oil and Hazardous Materials Response, Energy, Public Safety and Security, Long-Term Community Recovery and Mitigation, Agriculture and Natural Resources and External Affairs. When activated, the EOCs are in constant communication with the 9-1-1 centers to ensure coordination of activities. [NC EOC ESF 16 Volunteer & Donations Management]

The Lehigh and Northampton County Emergency Management Agency (EMA) capabilities fall under two categories: Emergency Service Measures and Public Information Programs. These capabilities are described below.

Emergency Service Measures

Emergency service measures protect people during and immediately following a disaster.

- Alert Warning System – Emergency Alert System (EAS) – Lehigh County operates as an EAS initiating station, covering Lehigh and Northampton counties. The EAS is an alert system for disseminating emergency information and warnings to the general public within the Counties, utilizing the resources of the Broadcast and Cable Industries. The EAS System allows state and local officials to quickly send out important area specific state and local information and it also recognizes the need to provide emergency information to people whose first language is not English. The EAS system has the capability of providing alerts in the language normally used by the station or cable system such as the Spanish language.

- **Monitoring Systems** – The counties have several systems they monitor that will disseminate emergency information and warnings. These systems include: SEVAN, Knowledge Center, PA Star System, RACES, IFLOWS, NOAA Weather Radios, and 800 Mhz Statewide Radio.
- **SEVAN** – The Satellite Emergency Voice Alerting Network – The voice side of the satellite warning system allows PEMA, counties, regional offices and cities to communicate directly in real time regardless of the status of the telephone system. Warning messages are routinely broadcast by PEMA using the system.
- **PaSTAR** – The Pennsylvania Statewide Telecommunication and Alerting System – A computer network that uses satellite-based technology and the latest computer server and client systems. The system allows data sharing, reporting and textual and graphics communications to flow unimpaired between users connected to the system. At the core of PaSTAR are commercially available computer server and email software packages.
- **Knowledge Center** – Knowledge Center is a web-based interactive incident management tool used by the Northeast Pennsylvania Regional Counterterrorism Task Force (NEPARCTTF), which includes, Lehigh and Northampton Counties. Knowledge Center provides emergency managers with the ability to gather large quantities of information related to incidents and coordinate that information for either small-scale events with one or two responder agencies or for large-scale events that involve complex, multi-jurisdictional responses comprised of hundreds of agencies from the local, state, and federal government, non-governmental organizations, and the private sector. The system allows for seamless communication with our neighboring jurisdictions, counties and the state about the types of incidents and emergencies we may have in our jurisdiction.
- **RACES** – The Radio Amateur Civil Emergency Services is a group of amateur radio operators who donate their services in time of natural disaster or emergency. They provide communication to fire, police and other agencies that need assistance.
- **IFLOWS** – Integrated Flood Observing and Warning System – This system relies on radio reporting rain and stream gauges which provide rainfall and stream level data via radio and satellite to counties, State Emergency Operations Center, PEMA Area Offices and the National Weather Service (NWS) serving Pennsylvania. Actual rainfall is compared with NWS Flash Flood Guidance (FFG), and alarms are triggered at various preset levels related to the FFG. FFG estimates the number of inches of rainfall for given durations required to produce flash flooding in the counties. These estimates are based on current soil moisture conditions. Note, in urban areas, less rainfall is required to produce flash flooding. The IFLOWS computer at the counties and all sites on the satellite network, alarm with both an audible and visual signal when rainfall or stream levels reach levels that can lead to flash flooding.
- **NOAA Weather Radio All Hazards (NWR)** is a nationwide network of radio stations broadcasting continuous weather information directly from a nearby National Weather Service office. NWR broadcasts National Weather Service warnings, watches, forecasts and other hazard information 24 hours a day. NWR also broadcasts warning and post-event information for all types of hazards – including natural and man-made (such as chemical releases or oil spills) and public safety (such as AMBER alerts or 911 Telephone outages).
- **800 Mhz Radio System** – provides two-way voice and data communications for all county and state agencies. The primary function of this system is to provide redundant

- communications between the county and the partner agency facilities in the event that the primary means of communication becomes interrupted.
- Emergency Response Planning
 - Emergency Operations Plan (EOP) - Lehigh and Northampton counties have prepared EOPs to document the county's emergency preparedness planning. The EOP includes county-specific emergency response procedures during significant emergency events. The counties will typically open the Emergency Operations Centers (EOCs) to coordinate warning, response and recovery actions.
 - Mutual Aid Agreements – Lehigh and Northampton counties have formal agreements in place with each other and with the Pennsylvania counties contiguous to each. Wording on Intrastate Mutual Aid Compact.
 - The counties also assist in planning for:
 - Lehigh Valley International Airport
 - Lehigh and Northampton County Prisons
 - Local (Municipal) Emergency Operation Plans
 - Medical Facilities
 - Dams
 - Mass Casualty/Fatality Incidents
 - Counterterrorism Preparedness
 - Limerick Nuclear Power Station Evacuation and Sheltering
 - Special Events – i.e. Allentown Fair, MusikFest, Mayfair etc.
 - School Planning
 - Day Care, Group Homes and Special Needs Facilities
 - SARA (Superfund Amendments and Reauthorization Act of 1986) – The Local Emergency Planning Committee program is based upon the 1986 Title III. This legislation requires local planning by businesses and response agencies (such as fire departments and hazardous materials teams) whenever hazardous materials are involved. SARA also requires the establishment of a system in each community, which informs the citizens of chemicals used, manufactured and stored locally.
 - Evacuation
 - Northampton County is in the early stages of developing an Evacuation Plan at the county level. Lehigh County has developed an evacuation plan for the County. The plan addresses the following basic scenarios:
 - Evacuation of a large population or geographic area within our regional task force.
 - Mass exodus of population from another area entering our area.
 - How would we or could we act as host for a large influx of evacuees?
 - The counties, in cooperation with the American Red Cross, have designated shelters set up throughout the counties. These shelters may be used during times of emergency and disasters.

Public Information Programs

- Flood Maps/Data – The counties have access to this type of information through their GIS departments, as well as other information that is available through the County Assessment Offices. The following information is available through the County Assessment Offices: County/Municipality Maps, District/Ward Maps, Millage Rate Schedules, Property Assessment Records and Deeds.
- Library Resources – The counties have educational materials available upon request that are used at public speaking events when appropriate. The following educational materials are available, but are not limited to:
 - Various Types of Training Videos
 - Pennsylvania Emergency Preparedness Guides
 - American Red Cross Packets for Flash Flooding, Hurricane, Thunder and Lightning, Tornado, Winter Storms
 - Family Disaster Planning Guides
 - Homeland Security information for Businesses, Family, Individuals, Neighborhoods and Schools
 - Pandemic Brochures
- Outreach Projects
 - Are You Ready? – An in-depth program for Citizen Preparedness (individual, family and community preparedness). Provides a step-by-step approach to disaster preparedness by walking the student through how to get informed about local emergency plans, how to identify hazards that affect their area, and how to develop and maintain an emergency communications plan and disaster supply kit. Other topics covered include evacuation, emergency public shelters, animals in disaster and information specific to people with disabilities. The course also provides in-depth information on specific hazards such as Floods, Tornadoes, Hurricanes, Thunderstorms and Lightning, Winter Storms and Extreme Cold, Extreme Heat, Earthquakes, Volcanoes, Landslide and Debris Flows (Mudslide), Tsunamis, Fires, Wildfires, Hazardous Materials Incidents, Household Chemical Emergencies, Nuclear Power Plant, and Terrorism (Explosion, Biological, Chemical, Nuclear, and Radiological hazards) and includes what to do before, during and after each hazard type.
 - Community Emergency Response Teams (CERT) – Training to educate citizens about disaster preparedness and training in basic disaster response skills, such as fire suppression, Disaster Medical Operations, Light Search and Rescue, Team Organization, Disaster Psychology, and Terrorism Awareness. The goal of this program is for emergency personnel to train members of neighborhoods, community organizations, or workplaces in basic response skills. If a disastrous event overwhelms or delays the community's professional response, CERT members can assist others by applying the basic response and organizational skills that they learned during training. These skills can help save and sustain lives following a disaster until help arrives.
 - Citizen Corps Council – The mission of the Citizen Corps is to harness the power of every individual through education, training, and volunteer service to make communities safer, stronger, and better prepared to respond to the threats of terrorism, crime, public health issues and disasters of all kinds.

- Emergency Management Courses are provided through the county EMA offices to the Local Coordinators and Elected Officials. The following courses are provided: Duties and Responsibilities of the Local Emergency Management Coordinator (LEMC), Elected Officials Seminar, Initial Damage Assessment, Safe Schools Training, National Incident Management System, Work Environment of the LEMC and numerous FEMA Independent Study Courses.
- Local Emergency Planning Committee (LEPC) – Working closely with the business industry community to form a safety net around the chemical industry to protect the general population from the possible outcome of hazardous material incidents.
 - The LEPC shall have a minimum of seven members, and will include at least one representative of each of the following groups:
 - Group 1 – Elected Official representing local governments within the county
 - Group 2 – Law enforcement, first aid, health, local environmental, hospital and transportation personnel
 - Group 3 – Firefighting personnel
 - Group 4 – Civil Defense and emergency management personnel
 - Group 5 – Broadcast and print media
 - Group 6 – Community groups not affiliated with emergency service groups
 - Group 7 – Owners and Operators of facilities subject to the requirements of SARA Title III
 - Reporting Facilities – Hazardous Chemicals for which facilities are required to have or prepare a Material Safety Data Sheet, the minimum reporting threshold is 10,000 pounds.
 - Planning Facilities – Extremely Hazardous Substances designated under Section 302 of Title III, the reporting threshold is 500 pounds or the threshold planning quantity, whichever is lower.
- Lehigh County has:
 - 102 SARA Planning Facilities
 - 134 SARA Reporting Facilities
- Northampton County has:
 - 37 SARA Planning Facilities
 - 77 SARA Reporting Facilities
- Technical Assistance – The county EMA offices can support local, public and private entities as needed through coordination and provision of information and equipment resources. These include both existing county capabilities, such as County Hazardous Materials Response Team and Technical Rescue Teams, and predetermined private and public resources.
- The Lehigh County Special Operations Team is/has:
 - Greater than 50 active members trained to Operations and Technician level in compliance with OSHA 1910.120.
 - Personal Protective Equipment (PPE) for all levels of Hazmat entry. Level A, B, C.

- SCBA for 16 team members with in suit communications. Dedicated radio frequencies.
 - Monitoring equipment for Radiation, Chemical & Biological Warfare, Mercury and Industrial Toxics available at any time.
 - Spill Containment and Mitigation supplies for spills, large and small.
 - Specialized equipment for tanker and rail car emergencies
 - They hold certifications in the following: Confined Space Rescue Technician, Trench Rescue Technician, Low and High Angle Rope Rescue, Structural Collapse, and Incident Command
 - Medically trained members in CPR, AED, EMT and Paramedic
 - Paramedics trained in Rescue Medicine to aid in the care of Technical Rescue Patients
- Lehigh County provides contractual Hazardous Materials Response Team coverage to Northampton County.

5.1.2 Local Capabilities

According to Pennsylvania Title 35 (Emergency Management Services Code) Chapter 7500:

- Each political subdivision of this Commonwealth is directed and authorized to establish a local emergency management organization in accordance with the plan and program of PEMA. Each local organization shall have responsibility for emergency, response and recovery within the territorial limits of the political subdivision within which it is organized and, in addition, shall conduct such services outside of its jurisdictional limits as may be required under this part.
- Declaration of disaster emergency – A local disaster emergency may be declared by the governing body of a political subdivision upon finding a disaster has occurred or is imminent. The effect of a declaration of a local disaster emergency is to activate the response and recovery aspects of any and all applicable local emergency management plans and to authorize the furnishing of aid and assistance.
- Each local organization of emergency management shall have a coordinator who shall be responsible for the planning, administration and operation of the local organization.
- Each political subdivision shall adopt an Intergovernmental Cooperation agreement with other political subdivisions to:
 - Prepare, maintain and keep current a disaster emergency management plan for the prevention and minimization of injury and damage caused by disaster, prompt and effective response to disaster and disaster emergency relief and recovery in consonance with the Pennsylvania Emergency Management Plan.
 - Establish, equip and staff an emergency operations center, consolidated with warning and communication systems to support government operations in emergencies and provide other essential facilities and equipment for agencies and activities assigned emergency functions.
 - Provide individual and organizational training programs to insure prompt, efficient and effective disaster emergency services.

- Organize, prepare and coordinate all locally available manpower, materials, supplies, equipment, facilities and services necessary for disaster emergency readiness, response and recovery.
 - Adopt and implement precautionary measures to mitigate the anticipated effects of disaster. Execute and enforce such rules and orders as the agency shall adopt and promulgate under the authority of this part.
 - Cooperate and coordinate with any public and private agency or entity in achieving any purpose of this part.
 - Have available for inspection at its emergency operations center all emergency management plans, rules and orders of the Governor and the agency.
 - Provide prompt and accurate information regarding local disaster emergencies to appropriate Commonwealth and local officials and agencies and the general public.
 - Participate in all tests, drills and exercises, including remedial drills and exercises, scheduled by the agency or by the federal government.
 - Participate in the program of integrated flood warning systems under section 7313 (6) (relating to powers and duties).
- Direction of disaster emergency management services is the responsibility of the lowest level of government affected. When two or more political subdivisions within a county are affected, the county organization shall exercise responsibility for coordination and support to the area of operations. When two or more counties are involved, coordination shall be provided by PEMA or by area organizations established by PEMA.
 - When all appropriate locally available forces and resources are fully committed by the affected political subdivision, assistance from a higher level of government shall be provided.
 - Local coordinators of emergency management shall develop mutual aid agreements with adjacent political subdivisions for reciprocal emergency assistance. The agreements shall be consistent with the plans and programs of PEMA.

The local municipalities in Lehigh and Northampton counties have the following capabilities:

Mutual Aid Agreements

Lehigh County has formal mutual aid agreements with 19 of its municipalities and the airport authority. Northampton County does not have agreements in place with its municipalities. Mutual Aid is covered under Act 93.

Emergency Operations Centers (EOC)

In the event of an impending emergency or disaster the local EOC may be activated. The purpose of the EOC is to manage the emergency response and coordinate distribution of resources to a disaster incident at the local level.

Emergency Response

Each municipality is responsible to provide emergency response to their municipality in Emergency Medical Services (EMS), Fire and Police. If a municipality does not have one of these providers in their community, they have mutual aid agreements with an adjacent political subdivision to provide such.

In Lehigh County there are:

- 15 EMS Stations
- 44 Fire Companies
- 13 Municipal Police Departments
- 2 State Police Barracks
- City of Allentown 9-1-1
- City of Bethlehem 9-1-1

In Northampton County there are:

- 15 EMS Agencies
- 38 Fire Agencies, 2 Rescue Agencies
- 26 Municipal Police Departments
- 3 School District Police Departments
- 3 College Campus Police Departments
- 2 State Police Barracks
- City of Bethlehem 9-1-1

Monitoring Systems

The municipalities may also be equipped with several systems to monitor emergency information and warnings. They include: Radio Amateur Civil Emergency Services (RACES) and National Oceanic and Atmospheric Administration (NOAA) Weather Radios, and Knowledge Center.

Emergency Response Planning

The municipalities may also assist with planning for:

- Municipal Emergency Operations Plan (EOP)
- Lehigh Valley International Airport
- Medical Facilities
- Dams
- Counterterrorism Preparedness
- Special Events – i.e. Allentown Fair, MusikFest, Mayfair, etc.
- School Planning
- Day Care, Group Homes and Special Needs Facilities
- Evacuation Planning

A summary of existing federal, state, regional and county programs (regulatory and otherwise) to manage specific hazard risks may be found in the hazard profiles in Section 4 of this plan update. While the risk of certain hazards can be addressed at least partially through mitigation, the risks of other hazards (particularly certain non-natural hazards) are primarily managed through the preparedness and response elements of emergency management, or via other regulatory programs at the federal and state levels.

Additional information on county and local emergency management capabilities may be found in the jurisdictional annexes in Section 9.

5.2 Participation in the National Flood Insurance Program

According to FEMA's 2002 *National Flood Insurance Program (NFIP): Program Description*, the U.S. Congress established the NFIP with the passage of the National Flood Insurance Act of 1968. The NFIP is a Federal program enabling property owners in participating communities to purchase insurance as a protection against flood losses in exchange for state and community floodplain management regulations that reduce future flood damages.

Participation in the NFIP is based on an agreement between communities and the Federal Government. If a community adopts and enforces a floodplain management ordinance to reduce future flood risk to new construction and substantial improvements in floodplains, the Federal Government will make flood insurance available within the community as a financial protection against flood losses. This insurance is designed to provide an insurance alternative to disaster assistance to reduce the escalating costs of repairing damage to buildings and their contents caused by floods (FEMA, 2002).

Currently all municipalities in the Lehigh Valley participate in the NFIP, with no municipalities having outstanding sanctions or suspensions. All municipalities have adopted a Flood Damage Prevention Ordinance which is administered locally by their Floodplain Administrator, and make current NFIP Flood Insurance Rate Maps (FIRMs) available for review by the public.

NFIP-participating communities in the Lehigh Valley are required to adopt a Flood Damage Prevention Ordinance, and update this ordinance whenever the regulatory NFIP FIRMs are officially updated. FEMA is currently in the process of developing new FIRM mapping, and once the map update process has been formally completed each community will have to update their ordinance. Both the LVPC and the PA Department of Community and Economic Development (state coordinating agency for the NFIP) provide support to municipalities by providing model Flood Damage Prevention Ordinances.

NFIP-participating communities in the Lehigh Valley are required to make current regulatory NFIP mapping available to their residents for review, and may provide mapping assistance through their floodplain administrators. Typically this mapping is available at the municipal offices in each community.

At the time this plan was written, the Lehigh County FEMA Digitized Flood Insurance Rate Maps (DFIRMs) dated July 2004 and the Northampton County preliminary DFIRMs dated 2011 were used to evaluate exposure and determine potential future losses. The Northampton County 2011 DFIRMs, although considered preliminary, are the best available data and used for this plan update.

Municipal participation in and compliance with the NFIP is supported at the federal level by FEMA Region III and the Insurance Services Organization (ISO), at the state level by the Pennsylvania Department of Environmental Protection (PADEP) and PEMA. Regionally, the LVPC prepared a model floodplain ordinance, and each County's emergency management department supports flood mitigation efforts as well as associated training and public education and awareness programs.

Flood hazard risk management in the Lehigh Valley is further supported by the LVPC through the Act 167 Stormwater Management Planning program, as detailed and referenced throughout this plan update.

Additional information on the NFIP program and its implementation within the Lehigh Valley may be found in the flood hazard profile (Section 4.3.4).

5.3 Community Rating System (CRS)

In the 1990s, the Flood Insurance Administration (FIA) established the CRS to encourage local governments to increase their standards for floodplain development. The goal of this program is to encourage communities, through flood insurance rate adjustments, to implement standards above and beyond the minimum required in order to:

- Reduce losses from floods
- Facilitate accurate insurance ratings
- Promote public awareness of the availability of flood insurance

CRS is a voluntary program designed to reward participating jurisdictions for their efforts to create more disaster-resistant communities using the principles of sustainable development and management. By enrolling in CRS, municipalities can leverage greater flood protection while receiving flood insurance discounts.

Currently within the Lehigh Valley only Hanover Township in Northampton County participates in the CRS program, with a current rating of 9 (5% discount on flood insurance premiums). Increased participation in the Lehigh Valley will be supported by both Counties as identified in their updated mitigation strategies. Further, certain communities in the Lehigh Valley have identified in their updated mitigation strategies that they plan to apply to the CRS program.

5.4 Planning and Regulatory Capability

While municipalities in Pennsylvania must comply with the minimum regulatory requirements established under the Pennsylvania Municipal Planning Code, they otherwise have considerable latitude in adopting ordinances, policies and programs that can support their ability to manage natural and non-natural hazard risk. Specifically, municipalities can manage these risks through comprehensive land use planning, hazard-specific ordinances (e.g. flood damage prevention, sinkholes, steep slopes), zoning, site-plan approval, and building code.

County and municipal planning and regulatory capabilities may be found in their jurisdictional annexes (Section 9, Table E1).

There is no county zoning ordinance in Lehigh or Northampton counties. Both counties have a subdivision and land development ordinance (SALDO). However, these regulations cover only Slatington Borough in Lehigh County and the Boroughs of West Easton, Glendon, Chapman in Northampton County. Since these municipalities do not have their own SALDO in place, the LVPC has the authority to enforce the county regulations in these communities. (LVPC 2012)

The LVPC has prepared a number of planning documents that are used during project review and informational resources that are available for public use, including the “Comprehensive Plan – The Lehigh Valley...2030”, Act 167 Stormwater Management Plans, water supply and wellhead protection plans, as well as model regulations/ordinances for floodplain management, steep slopes, and wetland and riparian buffers. Further, the LVPC supports open space and natural resource planning in the Lehigh Valley.

5.4.1 Comprehensive Plan, The Lehigh Valley...2030

The Lehigh Valley comprehensive plan was prepared by the LVPC and adopted by Lehigh and Northampton counties in June 2005. The purpose of the plan is to guide the orderly growth in the Lehigh Valley while promoting the conservation of farmland and natural resources including streams and floodplains, riparian buffers, wetlands, important natural areas, steep slopes and woodlands. Figure 2-6 in Section 2 of this plan shows the recommended General Land Use Plan for the Lehigh Valley. The figure identifies four broad categories of land use: natural resources, farmland preservation, and urban and rural development. The county plan recommends that new growth should not locate in areas recommended for natural resource or farmland protection. Higher density residential growth, industrial and business expansion should take place in the recommended urban areas. Areas recommended for rural development should be planned for low density and low intensity uses. The county plan identifies goals, policies and a number of implementation strategies for a variety of topics including land use, housing, natural resources, farmland preservation, economic development, transportation, community utilities (water, wastewater and stormwater), parks and recreation and historic preservation. The LVPC will comment on these issues during project reviews, however, the comments are advisory. Although the Pennsylvania Municipalities Planning Code requires that municipal plans be in accord with the county plan, the code provides no measures for assuring that this occurs. Most municipalities have adopted their own comprehensive plan as shown in the following table.

Table 5-1. Development Ordinances and Regulations Adopted by Municipalities (as of March 2012)

Municipalities	Comprehensive Plan		Zoning Ordinance		Subdivision Regulations	
	First Adopted	Latest Revision	First Adopted	Latest Revision	First Adopted	Latest Revision
LEHIGH COUNTY						
Alburtis	1974	2005	1961	1991	1960	1976
Allentown	1945	2009	1948	2010	1924	1987
Bethlehem*						
Catasauqua	1963	1999	1962	2004	1962	1973
Coopersburg	—	—	1961	2005	1957	2007
Coplay	2010	—	1969	2012	1982	—
Emmaus	1957	2005	1957	2005	1956	1976
Fountain Hill	1977	2007	1948	2008	1974	1995
Hanover Twp.	1964	1995	1963	1996	1961	1978
Heidelberg Twp.	1971	2005	1972	2010	1971	2010
Lower Macungie Twp.	1972	2005	1961	1998	1965	1998
Lower Milford Twp.	1968	2005	1967	2009	1964	1997
Lowhill Twp.	1971	2005	1972	—	1971	—
Lynn Twp.	1968	2005	1968	1982	1968	1980
Macungie	1966	2005	1966	2001	1964	2008
North Whitehall Twp.	1969	2009	1969	2002	1964	1999
Salisbury Twp.	1969	1992	1960	1993	1960	1997
Slatington	1981	2005	1982	1988	—	—
South Whitehall Twp.	1969	2009	1962	2010	1968	2010
Upper Macungie Twp.	1972	2007	1961	1994	1964	2011
Upper Milford Twp.	1963	2005	1963	2010	1962	2010
Upper Saucon Twp.	1971	1985	1959	2009	1963	2011
Washington Twp.	1964	2005	1968	2009	1963	2010
Weisenberg Twp.	1971	2005	1972	1993	1971	2000
Whitehall Twp.	1972	2005	1962	2006	1968	1999
NORTHAMPTON COUNTY						
Allen Twp.	1969	1999	1969	2000	1968	2001
Bangor	1968	2005	1967	1992	1968	—
Bath	1978	2006	1978	2011	1976	2011
Bethlehem	1960	2009	1926	2006	1975	1975
Bethlehem Twp.	1964	2004	1962	1997	1960	1989
Bushkill Twp.	1967	2006	1966	1994	1973	1994
Chapman	2006	—	—	—	—	—
East Allen Twp.	1970	2009	1970	1983	1971	1984
East Bangor	2006	—	2005	—	2009	—
Easton	1913	1997	1928	2007	1946	2007
Forks Twp.	1968	2010	1956	2006	1962	2007
Freemansburg	1969	—	1950	2009	2009	—
Glendon	—	—	1950	1987	—	—
Hanover Twp.	1972	2004	1963	1978	1963	1973
Hellertown	1969	2009	1968	2002	1969	1986
Lehigh Twp.	1968	1999	1968	2002	1968	1980
Lower Mt. Bethel Twp.	1971	2007	1972	—	1971	1990
Lower Nazareth Twp.	1962	2006	1966	2001	1963	2005
Lower Saucon Twp.	1964	2009	1963	2002	1958	2003
Moore Twp.	1973	2006	1973	2011	1965	2005
Nazareth	1969	2006	1969	1988	1986	1989
Northampton	1972	2005	1960	1999	1974	1993
North Catasauqua	—	—	1955	1995	1996	—
Palmer Twp.	1963	2003	1950	2002	1955	2002
Pen Argyl	1968	2004	1969	1997	1969	2007
Plainfield Twp.	1971	2004	1971	1993	1959	1991
Portland	1966	—	1966	—	1973	—
Roseto	1982	2005	1984	—	1979	1995
Stockertown	1972	2010	1973	2005	1970	2002
Tatamy	1965	2006	1964	1991	1964	1992
Upper Mt. Bethel Twp.	1967	2001	1977	2004	1973	2001
Upper Nazareth Twp.	1968	2006	1969	2007	1967	2005
Walnutport	1975	2008	1977	2008	2004	—
Washington Twp.	1969	2006	1979	1997	1973	1995
West Easton	—	—	1952	1992	—	—
Williams Twp.	1969	2000	1957	1990	1969	1997
Wilson	1962	—	1959	1994	1975	1995
Wind Gap	1968	2004	1968	1993	1968	2004

*Bethlehem City information is listed under Northampton County.

Note: Includes recodifications

Source: Lehigh Valley Planning Commission.

5.4.2 Stormwater Management Planning

In 1978, the Pennsylvania General Assembly passed the Stormwater Management Act, Act 167 of 1978. Act 167 requires counties to prepare stormwater management plans on a watershed-by-watershed basis. The plans must be developed in consultation with the affected municipalities. Standards for control of runoff from new development are a required component of each plan and are based on a detailed hydrologic assessment. A key objective of each plan is to coordinate the stormwater management decisions of the watershed municipalities. Implementation of each plan is through mandatory municipal adoption of ordinance provisions consistent with the plan. The LVPC provides an advisory engineering review of the stormwater aspects of subdivision proposals to assist in creating consistent implementation throughout each watershed. The municipalities have the authority to enforce the ordinance provisions. Within Lehigh and Northampton counties, the LVPC prepares plans on behalf of both counties. The state has designated 16 Act 167 study areas within the region. Figure 2-3 in Section 2 (Regional Profile) displays the location of the designated watersheds in the Lehigh Valley, while Table 2-1 lists the municipalities by watershed.

Until 2004, stormwater planning dealt solely with runoff quantity and not quality. To comply with requirements of the National Pollutant Discharge Elimination System (NPDES) regulations from the Environmental Protection Agency, 59 of the 62 municipalities in the Lehigh Valley must adopt and implement an ordinance to reduce or prevent the discharge of pollutants into receiving waters. The LVPC has updated all Act 167 plans to include water quality provisions.

Plans prepared under Act 167 will not resolve all drainage issues. A key goal of the planning process is to maintain existing peak runoff rates throughout a watershed as land development continues to take place. This process does not solve existing flooding problems although it should prevent these problems from getting worse. Correction of existing flooding problems is the responsibility of the municipalities.

5.4.3 Water Supply Planning

The LVPC has prepared a number of water supply planning documents including the 1995 Water Supply and Sewage Facilities Plan and 2000 Supplement, Wellhead Protection Demonstration Project, Water Supply/Wellhead Protection Plan, Wellhead Protection Implementation Program, Water Supply Assessment Report and the model Small Water System and draft Water Withdrawal ordinances. These documents provide the basis for the goals, policies and implementation strategies in the county comprehensive plan.

The Water Supply and Sewage Facilities Plan and Supplement identify issues and concerns related to water supply planning in the Lehigh Valley. Community and central water systems are identified as well as existing service areas, water source(s), source yield, treated storage and usage. The 1995 plan provides more detailed water supply planning policies and implementation strategies than the county comprehensive plan.

The Water Supply/Wellhead Protection Plan evaluates the viability of each community and central water system to provide for customer needs through 2010. The plan provides recommendations for each system. A general recommendation of the plan is the acquisition of the central systems by community systems to improve reliability, minimize the costs of needed improvements and enhance the viability of long-term water service to the central system customers. The purpose of the wellhead protection plans is to protect community and central water supply wells from pollutants. This would be accomplished through an ordinance designed to regulate land use activities within defined critical recharge areas surrounding water supply wells. A model ordinance was created as part of the work for municipalities to consider for

adoption. The LVPC worked with 12 municipalities to protect two water supply wells in each municipality. There were three municipalities that adopted the wellhead protection ordinance including Upper Mt. Bethel and Washington (N) townships and the Borough of Catasauqua.

In 2002, the LVPC completed a Water Supply Assessment Report of the Lehigh Valley's water resources to identify current and future well water users of all types through 2030 and groundwater availability during normal and drought conditions. From the available data, it was found that well water demand should not exceed groundwater supply during normal and drought conditions through 2030 on a watershed by watershed basis. One of the main findings of the assessment was the lack of up-to-date, reliable data on water usage and groundwater recharge. In 2009, the State released an updated State Water plan that began the process of updating this data.

The LVPC small water system ordinance is designed to regulate the creation of new central water systems and the expansion of existing small systems to ensure long-term, safe, reliable water supply. It is available for use by municipalities. The LVPC draft water withdrawal ordinance is designed to regulate new or expanded water withdrawals to ensure continuous water availability and prevent adverse impacts on existing users. The ordinance would impact proposals of 10,000 to 100,000 gallons per day which are less than that regulated by the Delaware River Basin Commission (DRBC). The DRBC has broad regulatory authority over water withdrawals. The ordinance is available for use by municipalities but they should be aware of the DRBC authority and the potential legal limitations of the draft ordinance.

5.4.4 Natural Resource Planning

The LVPC has prepared several documents related to natural resource planning. These documents include Minimizing Sinkhole Occurrences, a natural resources plan that is part of the two county comprehensive plan and a Natural Areas Inventory of Lehigh and Northampton Counties. These documents provide the basis for some of the policies and implementation strategies in the county comprehensive plan. Additional documents include the Monocacy Creek Erosion Restoration Plan and the Flood Recovery and Flood Mitigation Study.

Minimizing Sinkhole Occurrences (1988) provides a general understanding of sinkholes and how they can form. The document provides recommended ordinance provisions for municipal consideration to minimize the potential for sinkhole occurrence as it relates to new development. 47 of the 62 municipalities in Lehigh and Northampton counties are underlain entirely or in part by carbonate bedrock. Figure 2-5 in Section 2 (Regional Profile) identifies areas of carbonate geology in the Lehigh Valley. Sinkholes can occur in areas that have carbonate bedrock. There are 18 municipalities within the two counties that have adopted carbonate bedrock standards. These municipalities are listed below along with the year of ordinance adoption in parentheses.

- Upper Saucon Township, Lehigh County (1986)
- Lower Saucon Township, Northampton County (1988)
- Forks Township, Northampton County (1989)
- Lower Mt. Bethel Township, Northampton County (1990)
- Emmaus Borough, Lehigh County (1994)
- Bethlehem Township, Northampton County (1997)
- Lower Macungie Township, Lehigh County (1998)
- East Allen Township, Northampton County (1999)
- North Whitehall Township, Lehigh County (1999)
- Whitehall Township, Lehigh County (1999)
- Weisenberg Township, Lehigh County (2000)

- Upper Macungie Township, Lehigh County (2001)
- Stockertown Borough, Northampton County (2002)
- Lower Nazareth Township, Northampton County (2003)
- Palmer Township, Northampton County (2003)
- Upper Nazareth Township, Northampton County (2004)
- Tatamy Borough, Northampton County (2005)
- Macungie Borough, Lehigh County (2008)

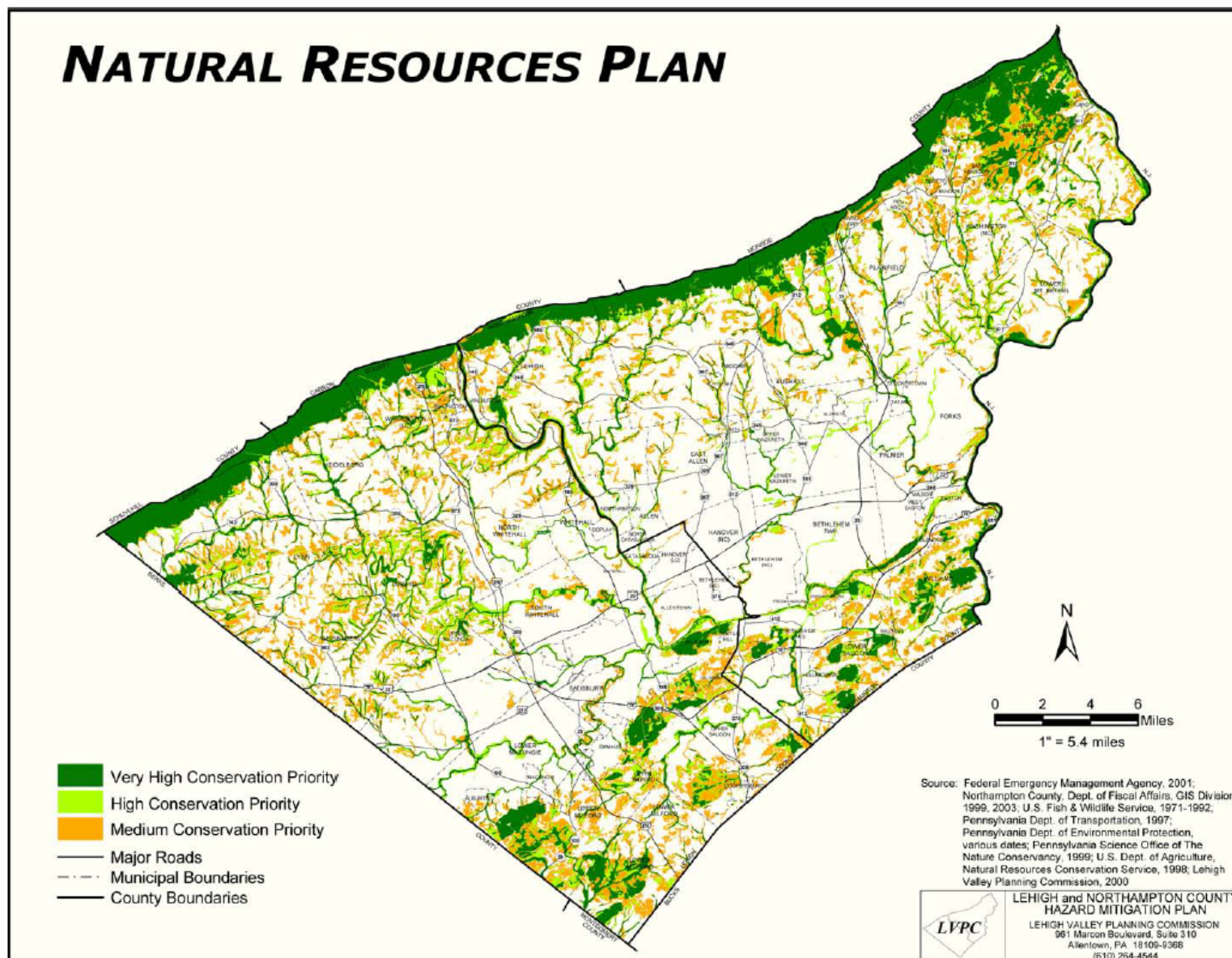
Further, it is noted that the boroughs of Glendon and West Easton are covered under the Northampton County Subdivision and Land Development Ordinance carbonate geology provisions.

The Natural Areas Inventory was prepared by The Nature Conservancy for the LVPC in 1999 and updated in 2005. The Inventory is currently being updated by the Western Pennsylvania Conservancy and is to be completed in 2013. This document identifies plant and animal species of concern and both outstanding natural communities and geologic features requiring protection in the Lehigh Valley. Lehigh and Northampton counties have many significant natural resources that are worthy of protection. Figure 5-1 provides a Natural Resources Plan map prepared by the Lehigh Valley Planning Commission as part of the county comprehensive plan. The map identifies major conservation areas based on steep slope areas, stream quality, floodplains, wetlands, hydric soils, carbonate geology, woodlands and important natural areas (identified in the Natural Areas Inventory). The map shows areas considered very high conservation priority, high conservation priority and medium conservation priority. Very high priority areas are based on areas with the greatest combination of important natural resources. These areas should be given first consideration for public and private conservation acquisition programs.

In 2003, the LVPC prepared the Monocacy Creek Erosion Restoration Plan to identify measures to minimize future stormwater erosion risks in the watershed. A key part of the project was to define the relative risk of erosion for agricultural properties throughout the watershed. The LVPC GIS was used to define natural site characteristics and upslope development characteristics that combine to enhance erosion risk. Existing erosion problems were also identified through field surveys. The restoration plan includes recommendations to remediate the existing problems and to minimize future problems. For existing problem sites, it is recommended that the county conservation districts and the Natural Resources Conservation Service (NRCS) conduct a detailed assessment of the existing erosion sites and identify appropriate solutions. Minimizing future problems is accomplished by the county conservation districts and NRCS using the erosion risk mapping to ensure that areas susceptible to erosion have appropriate preventive measures installed.

The purpose of the Flood Recovery and Flood Mitigation Study was to evaluate the extent of flood damage in Lehigh and Northampton counties due to the January 1996 flooding. The focus of the study was on commercial/industrial development. Possible mitigation measures were developed for high priority areas and the document was provided to the appropriate municipalities for their information and use.

Figure 5-1. Natural Resources Plan



5.4.5 Open Space Planning

The LVPC has prepared several plans with the goal of preserving open space in the Lehigh Valley for recreational and environmental purposes. These plans include the Regional Recreation and Open Space Plan: 1980 Update, the South Mountain Study (1977), and the Northampton County Parks - 2010 (2002) and Lehigh County Parks - 2005 (1997) plans. The LVPC will comment on open space issues identified in these plans during project reviews.

The LVPC completed a greenways plan for the Lehigh Valley in 2007. A greenway is a corridor of open space. The plan identifies four types of greenways that include conservation, cultural/recreational, conservation/cultural and scenic. The plan evaluates how local ordinances may protect greenways.

5.4.6 Informational Resources

The LVPC has a variety of informational resources available to the public. Many of the publications discussed previously are available for review by the public at the LVPC office. The LVPC recently released an updated version of its GIS data disc covering Lehigh and Northampton counties which is available on CD-ROM. The layers include floodplains, geology, natural areas, parks, wetlands and woodlands, among others. Copies of the floodplain mapping and flood studies prepared by FEMA for both counties are available for public review at the LVPC office. The floodplain mapping currently in effect in Lehigh and Northampton Counties is dated July 16, 2004 and April 6, 2001, respectively. FEMA prepared preliminary mapping for Northampton County dated December 14, 2011, however it has not been finalized at the time of this report. The LVPC also responds to floodplain information requests from the public. The LVPC Local Government Academy has sponsored seminars related to stormwater management, floodplain issues, model environmental ordinances, Growing Greener-Conservation by Design, and basic courses in subdivision review and zoning and a basic course for planning commissioners. The LVPC has also prepared water supply brochures that are available to the public on water conservation and groundwater/wellhead protection.

It is noted that both counties, and many of the municipalities, have identified specific mitigation initiatives in this plan update to help build and enhance mitigation-related planning and regulatory capabilities in the Lehigh Valley.

5.5 Administrative and Technical Capability

Specific administrative and technical capabilities at the county and local levels are identified in each jurisdiction's annex in Section 9, Table E2, of this plan update.

Municipalities are further supported by county, regional, state and federal administrative and technical capabilities. With regard to hazard mitigation, the majority of such support agencies and resources have been included within this plan update process, and identified and referenced throughout the plan update.

It is noted that both counties, and many of the municipalities, have identified specific mitigation initiatives in this plan update to help build and enhance mitigation-related administrative and technical capabilities in the Lehigh Valley.

5.6 Fiscal Capability

Mitigation projects and initiatives are largely or entirely dependent on available funding. As such, it is critical to identify all available sources of funding at the local, county, regional, state and federal level to support implementation of the mitigation strategies identified in this plan update.

Jurisdictions fund mitigation projects through existing local budgets, local appropriations (including referendums and bonding), and through a myriad of federal and state loan and grant programs.

Federal mitigation grant funding (Stafford Act 404 and 406) is available to all communities with a current hazard mitigation plan (this plan); however most of these grants require a “local share” in the range of 10-25% of the total grant amount.

5.6.1 Capital Improvement Planning

Both counties and many of the municipalities in the Lehigh Valley have capital improvements plans, identifying specific capital projects to be funded and completed according to a defined schedule. Some of these projects involve improvements to facilities and infrastructure that provide hazard mitigation benefits. As such, during this update process, the counties and municipalities have been encouraged to consider the mitigation benefits associated with their known or anticipated capital projects as a way to help prioritize their execution and to develop awareness that mitigation grants may be available to help fund such projects.

5.6.2 Federal Hazard Mitigation Funding Opportunities

Hazard Mitigation Grant Program (HMGP)

The HMGP is a post-disaster mitigation program. It is made available to states by FEMA after each Federal disaster declaration. The HMGP can provide up to 75% funding for hazard mitigation measures. The HMGP can be used to fund cost-effective projects that will protect public or private property in an area covered by a federal disaster declaration or that will reduce the likely damage from future disasters. Examples of projects include acquisition and demolition of structures in hazard prone areas, floodproofing or elevation to reduce future damage, minor structural improvements and development of state or local standards. Projects must fit into an overall mitigation strategy for the area identified as part of a local planning effort. All applicants must have a FEMA-approved Hazard Mitigation Plan. Applicants who are eligible for the HMGP are state and local governments, certain nonprofit organizations or institutions that perform essential government services, and Indian tribes and authorized tribal organizations. Individuals or homeowners cannot apply directly for the HMGP; a local government must apply on their behalf. Applications are submitted to PEMA and placed in rank order for available funding and submitted to FEMA for final approval. Eligible projects not selected for funding are placed in an inactive status and may be considered as additional HMGP funding becomes available.

Flood Mitigation Assistance (FMA) Program

FMA provides funding to assist states and communities in implementing measures to reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other structures insurable under the NFIP. The FMA is funded annually; no federal disaster declaration is required. Only NFIP insured homes and businesses are eligible for mitigation in this program. Funding for FMA is very limited and, as with the HMGP, individuals cannot apply directly for the program. Applications must come from local governments or other eligible organizations. The federal cost share for an FMA project is 75%. At least 25% of the total eligible costs must be provided by a non-federal source. Of this 25%, no more than

half can be provided as in-kind contributions from third parties. At minimum, a FEMA-approved local flood mitigation plan is required before a project can be approved. FMA funds are distributed from FEMA to the state. PEMA serves as the grantee and program administrator for FMA.

Pre-Disaster Mitigation (PDM) Program

The PDM program is an annually funded, nationwide, competitive grant program. No disaster declaration is required. Federal funds will cover 75% of a project's cost up to \$3 million. As with the HMGP and FMA, a FEMA-approved local Hazard Mitigation Plan is required to be approved for funding under the PDM program.

Repetitive Flood Claims (RFC) Program

The RFC program is an annually funded, nationwide mitigation grant program with the goal of reducing flood damages to individual properties for which one or more claim payments for losses have been made under flood insurance coverage, and will result in the greatest amount of savings to the National Flood Insurance Fund (NFIF) in the shortest period of time. RFC funding is available for property acquisition and structure demolition or relocation, structural elevations, and minor localized flood reduction projects. Federal funding covers 100% of the project costs.

Severe Repetitive Loss (SRL) Program

The SRL program is an annually funded, nationwide mitigation grant program with the goal of reducing flood damages to residential properties that have experienced severe repetitive losses under flood insurance coverage, and as such, will result in the greatest amount of savings to the NFIF in the shortest period of time. An SRL property is defined as a residential property that is covered under an NFIP flood insurance policy and:

- (a) That has at least four NFIP claim payments (including building and contents) over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or
- (b) For which at least two separate claims payments (building payments only) have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building.

For both (a) and (b) above, at least two of the referenced claims must have occurred within any ten-year period, and must be greater than 10 days apart.

SRL funding is available for property acquisition and structure demolition or relocation, structural elevations, and minor localized flood reduction projects. Federal funding covers 75% of the project costs (90% if the community has a repetitive loss strategy).

5.6.3 Federal Disaster Assistance Programs

Following a disaster, various types of assistance may be made available by local, state and federal governments. The types and levels of disaster assistance depend on the severity of the damage and the declarations that result from the disaster event. Among the general types of assistance that may be provided should the President of the United States declare the event a major disaster are the following:

- Individual Assistance – provides help for homeowners, renters, businesses and some non-profit entities after disasters occur. This program is largely funded by the U.S. Small Business Administration. For homeowners and renters, those who suffered uninsured or underinsured losses may be eligible for a Home Disaster Loan to repair or replace damaged real estate or

personal property. Renters are eligible for loans to cover personal property losses. Individuals may borrow up to \$200,000 to repair or replace real estate, \$40,000 to cover losses to personal property and an additional 20% for mitigation. For businesses, loans may be made to repair or replace disaster damages to property owned by the business, including real estate, machinery and equipment, inventory and supplies. Businesses of any size are eligible. Non-profit organizations such as charities, churches, private universities, etc. are also eligible. An Economic Injury Disaster Loan provides necessary working capital until normal operations resume after a physical disaster. These loans are restricted, by law, to small businesses only.

- **Public Assistance** – provides cost reimbursement aid to local governments (state, county, local, municipal authorities and school districts) and certain non-profit agencies that were involved in disaster response and recovery programs or that suffered loss or damage to facilities or property used to deliver government-like services. This program is largely funded by FEMA with both local and state matching contributions required.

5.6.4 Other Potential Funding Sources

Community Development Block Grants (CDBG)

CDBG are federal funds intended to provide low and moderate-income households with viable communities, including decent housing, a suitable living environment, and expanded economic opportunities. Eligible activities include community facilities and improvements, roads and infrastructure, housing rehabilitation and preservation, development activities, public services, economic development, planning, and administration. Public improvements may include flood and drainage improvements. In limited instances, and during the times of “urgent need” (e.g. post disaster) as defined by the CDBG National Objectives, CDBG funding may be used to acquire a property located in a floodplain that was severely damaged by a recent flood, demolish a structure severely damaged by an earthquake, or repair a public facility severely damaged by a hazard event.

The County of Northampton’s Consolidated Plan, covering Fiscal Years 2012-2017, has identified housing and community development needs and developed specific goals and objectives to address those needs over a five-year period. This Plan allows the County to receive federal housing and community development funds as a direct Entitlement from the U.S. Department of Housing and Urban Development (HUD). Under this Plan, it is stipulated that the Northampton County Department of Community and Economic Development (NCD CED) will administer the community development programs for all municipalities in Northampton County, except the Cities of Bethlehem and Easton which are separate Entitlements under the CDBG program. The County is a direct entitlement of CDBG funds only. Other HUD funding sources covered by Consolidated Plans, such as HOME or Emergency Solutions Grants, must be received through the Commonwealth’s competitive process.

Specific fiscal capabilities at the county and local levels are identified in each jurisdiction’s annex in Section 9, Table E3, of this plan update. While most of the identified fiscal capabilities are available to all of the municipalities in the Lehigh Valley, the extent to which communities have leveraged these funding sources varies widely, and it is logical to expect that communities that are familiar with accessing specific grant programs will continue to consider and pursue those sources as appropriate.

It is noted that known, targeted and potential funding sources are identified for each project/initiative in the mitigation strategies summarized in each jurisdictional annex in Section 9.

5.7 Political Capability

With respect to hazard mitigation, political capability speaks to a jurisdiction's ability, will and commitment to supporting risk management activities and programs within all aspects of their community's governance. This may be evidenced through the adoption and appropriate enforcement of mitigation-related ordinances and plans (zoning, comprehensive planning, site-plan review, building code, higher regulatory standards), appropriate and critical mitigation-related outreach to vulnerable property owners and the public in general, an appropriate dedication of resources (administrative, technical, fiscal) to implement identified priority mitigation projects/actions, and the integration and coordination of the findings and recommendations of this plan update within other complementary and supportive plans and programs.

Strong political capabilities are built over time; they are not necessarily transferred from one elected official to the next. Communities that have had to repeatedly face hazard events and their impacts tend to be those that build and maintain greater mitigation capabilities, and this is certainly the case with political (including public) will. Through this mitigation planning, update and implementation process, FEMA and the state are promoting efforts to build political and popular support to improve the management of hazard risk at the local level.

The Capability Assessment surveys provided to each jurisdiction for completion included an assessment of local political capability, where the respondent was asked to rate their community's political capability to effect and support hazard mitigation on a scale ranging from "5 – Very Willing" to "0 – Unwilling to Adopt Policies/Programs". Completed capability assessment worksheets returned from communities may be found in Appendix D. By its very nature, an assessment of political capabilities tends to be highly subjective, and any such local assessment provided by a community should not necessarily be considered statistically valid or reflective of the opinions of others in the community. As such, no summary of jurisdictional responses with respect to local political capability assessments is provided. Alternatively, as described in the following section, a self-assessment of municipal capabilities, including community political capability, is provided in Table 5-2.

5.8 Self-Assessment

Via the Capability Assessment surveys, all participating jurisdictions were further asked to provide a self-assessment of their jurisdiction's capability in the areas of Planning and Regulatory Capability, Administrative and Technical Capability, Fiscal Capability, Community Political Capability, and Community Resiliency Capability. Respondents evaluated their degree of capability in these areas as "Limited", "Moderate" or "High". The summary results from those communities providing completed capability self-assessment worksheets are provided in Table 5-2.

Table 5-2. Capability Self-Assessment Matrix

Municipality	Capability Category				
	Planning and Regulatory Capability	Administrative and Technical Capability	Fiscal Capability	Community Political Capability	Community Resiliency Capability
Lehigh County					
Alburtis Borough	Moderate	Moderate	Limited	Moderate	Moderate
Allentown, City of	High	High	Moderate	High	High
Bethlehem, City of	High	High	Moderate	High	High

Municipality	Capability Category				
	Planning and Regulatory Capability	Administrative and Technical Capability	Fiscal Capability	Community Political Capability	Community Resiliency Capability
Catasauqua Borough	High	Moderate	Limited	Moderate	Moderate
Coopersburg Borough	Moderate	High	Limited	Moderate	Limited
Coplay Borough	Moderate	Moderate	Moderate	Moderate	Moderate
Emmaus Borough	High	High	Moderate	Moderate	Moderate
Fountain Hill Borough	Moderate	Moderate	Moderate	Moderate	Moderate
Hanover Township	High	High	High	High	High
Heidelberg Township	Moderate	Moderate	Moderate	Moderate	Moderate
Lower Macungie Township	High	High	Moderate	Moderate	Moderate
Lower Milford Township	High	High	Limited	High	Limited
Lowhill Township					
Lynn Township	Limited	Moderate	Limited	Limited	Limited
Macungie Borough	Limited	Limited	Limited	Limited	Limited
North Whitehall Township					
Salisbury Township					
Slatington Borough	Moderate	Moderate	Limited	Moderate	Limited
South Whitehall Township	High	High	High	High	High
Upper Macungie Township	High	High	Moderate	Moderate	High
Upper Milford Township	Moderate	Moderate	Moderate	Moderate	High
Upper Saucon Township					
Washington Township	Moderate	Moderate	Moderate	Moderate	Moderate
Weisenberg Township					
Whitehall Township	High	High	High	High	Moderate
Lehigh County					
Northampton County					
Allen Township					
Bangor Borough	Moderate	Moderate/High	Moderate	High	Moderate
Bath Borough	Moderate	Moderate	Limited	High	High
Bethlehem Township	Moderate	Moderate	Moderate	Moderate	Moderate
Bethlehem, City of	High	High	Moderate	High	High
Bushkill Township	Moderate	High	High	High	High
Chapman Borough					
East Allen Township	Moderate	Moderate	Limited	Limited	Limited
East Bangor Borough					
Easton, City of	High	High	High	High	High
Forks Township					
Freemansburg Borough					
Glendon Borough					
Hanover Township					
Hellertown Borough	High	Moderate	Limited	Moderate	Moderate

Municipality	Capability Category				
	Planning and Regulatory Capability	Administrative and Technical Capability	Fiscal Capability	Community Political Capability	Community Resiliency Capability
Lehigh Township	Moderate	Moderate	Limited	Moderate	Moderate
Lower Mt. Bethel Township					
Lower Nazareth Township					
Lower Saucon Township					
Moore Township					
Nazareth Borough					
North Catasauqua Borough					
Northampton Borough	Limited	Moderate	Limited	Limited	Moderate
Palmer Township	Moderate	High	Limited	Moderate	Moderate
Pen Argyl Borough	Limited	Limited	Limited	Moderate	Moderate
Plainfield Township	Moderate	Moderate	Limited	Moderate	Moderate
Portland Borough	Moderate	Moderate	Moderate	Moderate	Moderate
Roseto Borough					
Stockertown Borough	High	High	Limited	Limited	Moderate
Tatamy Borough	Limited	Limited	Limited	Limited	Limited
Upper Mt. Bethel Township	High	High	Limited	High	High
Upper Nazareth Township					
Walnutport Borough	Limited	Limited	Limited	Moderate	Moderate
Washington Township	Moderate	Moderate	Limited	Moderate	Moderate
West Easton Borough					
Williams Township	Moderate	Moderate	Moderate	Moderate	Moderate
Wilson Borough					
Wind Gap Borough					
Northampton County					

5.9 Capability Assessment Recommendations

It is well recognized that a jurisdiction's ability to effectively manage natural hazard risk is directly related to their level of hazard mitigation capabilities. Both counties and all communities in the Lehigh Valley have identified specific actions to improve these capabilities, as identified in their jurisdictional annexes in Section 9.