



## SECTION 5 CAPABILITY ASSESSMENT

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

The first step in organizing hazard mitigation capabilities or resources is to describe the basic approaches available to reduce hazard risks. According to the 2020 Pennsylvania Emergency Management Agency (PEMA) Hazard Mitigation Planning Standard Operating Guide (SOG), the following four general approaches may reduce hazard risks: (1) reviewing local plans and regulations, (2) modifying structures and infrastructure, (3) protecting natural systems, and (4) promoting education and awareness. A brief description of each (according to the PEMA SOG) is provided below:

- **Local Plans and Regulations** – These actions include government authorities, policies, or codes that influence the ways land and buildings are developed and built.
- **Structure and Infrastructure** – These actions involve modifying existing structures and infrastructure or constructing new structures to reduce hazard vulnerability.
- **Natural Systems Protection** – These actions minimize damage and losses and preserve or restore the functions of natural systems.
- **Education and Awareness** – These actions inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate these hazards, and may also include participation in national 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, one or more of the five resources may be available. A brief description of each resource (PEMA 2020) is provided below:

- **Human resources** include local police, fire, ambulance, and emergency management and response personnel; local government services; and electric, gas, and other utility providers that are critical during 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 gauges, and 9-1-1 communications systems. Technical/technological resources also include technical requirements established by law, regulation, or ordinance.
- **Informational resources** include materials about disasters and hazard mitigation and planning; these resources are available from a wide variety of sources, such as applicable websites, 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 should assess their financial capability and identify resources to implement hazard mitigation action plans.

This section describes and summarizes the federal, state, county, and local capabilities to address hazard risk in Chester County.



## 5.1 UPDATE PROCESS SUMMARY

During the plan update process, Chester County and all participating municipalities were asked to provide an updated assessment of their mitigation planning capabilities. Each municipality was provided with a Capability Assessment Survey based on Appendix 3 of the October 2013 and 2020 editions of the PEMA All-Hazard Mitigation Planning SOG (PEMA 2013, PEMA 2020). The survey was provided to each of the municipal planning points of contact at the Planning Team kickoff meeting. Capability Assessment Surveys, whether completed by hand, electronically, or filled in working alongside the county or planning consultant, are provided in Appendix D.

Chester County has several resources available to implement hazard mitigation initiatives, including emergency response measures; local planning and regulatory tools; administrative assistance and technical expertise; fiscal capabilities; and participation in local, regional, state, and federal programs. These resources enable community resiliency through actions taken before, during, and after a hazard event. Emergency services, manpower, equipment, and fiscal resources are important tools in addressing hazard potential and mitigation in Chester County communities.

This section describes and summarizes the federal, state, county, and local capabilities to address hazard risk in Chester County.

## 5.2 CAPABILITY ASSESSMENT FINDINGS

A jurisdiction's ability to effectively manage natural hazard risk is directly related to its level of hazard mitigation capabilities. As such, mitigation strategies developed in coordination with Chester County's municipalities have a direct effect on establishing new capability functions in the community or strengthening existing capabilities.

Chester County and most of its municipalities updated and completed the Capability Assessment Survey (Appendix D). If municipalities did not update or partially updated their capabilities information, the same information provided by those municipalities for the 2015 Hazard Mitigation Plan (HMP) was carried forward into this plan update.

The following sections further detail the capability assessment findings.

### 5.2.1 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 be used to manage natural and non-natural hazard risks. Specifically, municipalities can manage these risks through comprehensive land use planning, hazard-specific ordinances (for example, flood damage prevention, sinkholes, and steep slopes), zoning, site-plan approval, and building code enforcement. When effectively prepared and administered, these regulations can lead to hazard mitigation.

For example, the adoption of the National Flood Insurance Program (NFIP) and the Pennsylvania Flood Plain Management Act (Act 166 of 1978) established minimum floodplain management criteria. A municipality must adopt and enforce these minimum criteria to be eligible for participation in the NFIP. Municipalities have the option of adopting a single-purpose ordinance or incorporating these provisions into their zoning and/or subdivision and land development ordinances or building codes, thereby mitigating the potential impacts of local flooding.

Chester County also has the Transportation Improvement Inventory (TII), a comprehensive record of known transportation needed and projects within the county. The TII is updated biennially and contains projects that have been recommended to the Planning Commission. The 2019 TII included 532 proposed roadway, bridge, bicycle, pedestrian, freight, and transit projects with a total estimated cost of \$4.42 billion (Chester County Planning Commission 2019).



## County and Municipal Planning Capabilities

### Chester County Comprehensive Plan

A comprehensive plan is a policy document that states objectives and guides the future growth and physical development of a municipality. The comprehensive plan is a blueprint for housing, transportation, community facilities, utilities, and land use. It examines how the past led to the present and charts the community's future path. The Pennsylvania Municipalities Planning Code (MPC) Act 247 of 1968, as reauthorized and amended, requires counties to prepare and maintain a comprehensive plan. In addition, the MPC requires counties to update the comprehensive plan every 10 years. The Chester County Commissioners annually approve a comprehensive 5-year capital improvement plan, which identifies both sources and uses of funds to support strategic objectives. Landscapes3 is the current comprehensive plan for Chester County.

Section 301a.(2) of the MPC requires comprehensive plans to include a plan for land use, which among other provisions suggests that the plan should give consideration to floodplains and other areas of special hazards and other similar uses. The MPC also requires comprehensive plans to include a plan for community facilities and services and recommends giving consideration to storm drainage and floodplain management.

The Chester County Comprehensive Plan is slated to guide Chester County until 2028. The comprehensive plan was adopted in 2018 and addresses the following plan elements:

- Housing
- Social Services
- Economic Development
- Transportation
- Recreation / Open Space / Natural Resources / Historic Resources
- Public Utilities / Services / Facilities
- Land Use

Each plan element includes a profile, trends, conclusions, and policy statements as well as an implementation matrix.

Implementation recommendations for housing include: provide housing policy and ordinance assistance; identify new approaches for affordable housing; explore public/private partnerships for workforce housing; and promote universal design in housing and public spaces. These implementation recommendations could ensure stronger building codes or code enforcement to make housing less vulnerable to hazards.

Implementation recommendations for social services include: promote impactful public health policy and services; promote healthy lifestyle choices; promote increased access to fresh, healthy, and local food; provide exemplary emergency services; support emergency service responders; enhance and expand recreational opportunities; support human and social services to serve evolving community needs; and integrate education facilities with communities. These implementation recommendations could ensure stronger public health policies and promote a healthier and more resilient community to make social services less vulnerable to hazards.

Implementation recommendations for economic development include: expand workforce development; create a redevelopment program; support flexible zoning; retain and expand existing businesses; market county's location and amenities; create and grow businesses; ensure economic development strategies remain responsive; revitalize urban center; encourage suburban center investment; support agricultural economic development; and expand heritage tourism programs; and expand historic interpretation and education. Zoning can be used to minimize development in hazard-prone areas. Revitalizing an urban center could result in structures that were built using older codes being replaced with structures built according to newer, stronger ones, making economic development less vulnerable to hazards.

Implementation recommendations for transportation include: advance transportation improvements; advance multimodal transportation; embrace smart transportation improvements for roadways; conduct a freight study; promote bus service within growth areas; expand regional rail service; and create a countywide, interconnected



trail network. Making bus and rail services dependable and available could reduce the number of vehicles on the road, therefore reducing transportation accidents, making transportation less vulnerable to hazards.

Implementation recommendations for recreation, open space/natural resources/historic resources include: update historic resource inventories; expand preservation training; foster creation of historic funding programs; enhance the historical record of the county; promote adaptive reuse and compatible development; promote benefits of natural resource protection; provide natural resource policy and ordinance assistance; enhance countywide water resources planning; monitor impacts of change on water resources; enhance stormwater technical assistance and collaboration; promote innovative practices for improved water quality; enhance flood resiliency; expand open space education, increase protected farmlands; expand protection of natural habitats; create additional recreation properties; enhance protection of historic resources; expand the network of protected open space; encourage restoration and stewardship; support open space polices and ordinances; and convene open space summits. Enforcing land and water resources policies, as well as preserving historic structures, will protect open space and natural and cultural resources from being built on or destroyed.

Implementation recommendations for public utilities/services/facilities include: enhance pipeline safety and communication; support a resilient and clean energy network; integrate water, sewer, and land use planning; implement county solid waste plan; and support municipal on-lot sewage management programs. Implementing pipeline, water, sewer and land programs and policies could decrease pipeline leaks, increase clean energy, and protect water and sewer facilities, making public utilities/services/facilities less vulnerable to hazards.

Although the MPC requires that municipal plans be in accord with the county plan, the code provides no measures for ensuring this occurs. Several municipalities have adopted single- or multi-jurisdictional regional comprehensive plans.

### **Stormwater Management Planning**

In 1978, the Pennsylvania General Assembly passed the Stormwater Management Act (Act 167) of 1978 (Pennsylvania State Data Center 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. Each new plan is required to provide standards for control of runoff from new development, 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.

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. While the planning process does not solve existing flooding problems, it aims to prevent these problems from getting worse. Each municipality is responsible for correcting existing flooding problems.

In July 2013, Chester County developed the Act 167 Stormwater Management Plan for Chester County called “Watersheds, An Integrated Water Resources Management Plan for Chester County, PA and its Watersheds.” All 73 municipalities have adopted Act 167 stormwater management ordinances (Chester County 2013). Phase 1 of the “Watersheds, An Integrated Water Resources Management Plan for Chester County, PA and its Watersheds” includes:

- A summary of county watershed characteristics
- An inventory of relevant problems and opportunities
- The vision and planning framework

The plan is designed to provide consistency in stormwater management planning, regulation, and implementation; provide an integrated stormwater management plan; provide useable technical information in a geographic information systems (GIS) format; and provide technical information for future hydrologic and hydraulic analysis and regulatory activities.

According to Section 11(b) of Act 167, municipalities subject to the Stormwater Management Plan must enact or amend and implement such ordinances as necessary to regulate development in a manner consistent with the Stormwater Management Plan. Municipalities are encouraged to use the model ordinance included in the plan.



### Open Space and Natural Resource Planning

Chester County has prepared several plans with the goal of preserving open space in the county for recreational and environmental purposes. These plans include chapters in the Chester County Comprehensive Plan Landscape3 (Chester County Planning Commission 2018), “Linking Landscapes,” and “Watersheds, An Integrated Water Resources Management Plan for Chester County, PA and its Watersheds.”

### Transportation Improvement Program

Along with the TII, Chester County also participates in the Transportation Improvement Program (TIP). The TIP is the region’s agreed-upon list of specific priority projects. The TIP lists all projects that intend to use federal funds along with non-federally funded projects that are regionally significant. The list is multimodal; in addition to the more traditional highway and public transit projects, it includes bicycle, pedestrian, and freight-related projects as well.

### Informational Resources

Chester County has a variety of informational resources available. Informational resources include websites, brochures, pamphlets, workshops, and public service announcements PSAs.

- The Department of Emergency Services (DES) has an informational website located at <https://www.chesco.org/217/Emergency-Services>
- The Department of Emergency Services (DES) Facebook Page is located at <https://www.facebook.com/CCDES/>
- The county’s website is located at <https://www.chesco.org/>.
- The county’s Facebook page is located at <https://www.facebook.com/ChesCoGovt/>
- Chester County’s official source for emergency information and government notifications is located at <http://www.readychesco.org/>
- Information on hazard mitigation and preparedness was referenced at the websites for Federal Emergency Management Agency (FEMA) ([www.fema.gov](http://www.fema.gov)) and PEMA ([www.pema.pa.gov](http://www.pema.pa.gov)).

### Chester County Health Department

The mission of the Chester County Health Department is to provide personal and environmental health services to residents and visitors so that they may grow, live, and work in healthy and safe communities. The Health Department is responsible to the County Commissioners through a five-member Board of Health, all Chester County residents. Services are available to all Chester County residents regardless of race, color, religious creed, ancestry, national origin, age, handicap, or sex.

### Chester County Department of Emergency Services

The Chester County Department of Emergency Services (DES) maintains a strong emergency management capability that supports Chester County. The county operates an emergency 9-1-1 call center and activates its own emergency operations center (EOC) during emergencies. In addition, the county provides or supports emergency service programs and measures, including emergency response; training coordination and administration; disaster response planning, coordination, recovery, and mitigation; hazardous materials emergency response; and fire prevention and investigation. Capabilities include the 9-1-1 center, Pulsepoint, EOC, emergency service measures, emergency response planning, public information programs, and GIS services, which are described in the sections below.

#### 9-1-1 Center

9-1-1 is the telephone number used to report emergencies. Citizens use the service in the event of the presence or potential for an immediate threat to life or property and to request response from police, fire, or emergency medical services (EMS) agencies. Examples include reporting a crime that has just occurred or is in progress; describing an odor such as gas or reporting a fire; or calling for assistance with a sick or injured person who requires treatment and possibly transportation to a hospital emergency department. The 9-1-1 system is capable



of accepting calls from hearing or speech-impaired callers using a Telecommunications Device for the Deaf (TDD), and text messages. The center also has a translation service for over 200 languages. Each county in Pennsylvania operates a 9-1-1 Public Safety Answering Point (PSAP). Personnel at these PSAPs would need to coordinate their efforts in a regional hazard event. Computerized mapping of streets with address information is critical for emergency response purposes. The 9-1-1 center is also used to alert citizens during an emergency.

### Emergency Operations Center

In the event of an impending emergency or disaster, Chester County would activate its EOC. When activated, the EOC is in constant communication with the 9-1-1 center to ensure coordination of activities. The EOC is located in the Chester County Government Services Center in West Chester.

The DES capabilities fall under two categories: emergency service measures and emergency response planning. These capabilities are described below.

### Emergency Operations Plan

The Pennsylvania Emergency Management Services Code, Title 35, requires all political jurisdictions in the Commonwealth to have an Emergency Operations Plan (EOP), an Emergency Management Coordinator (EMC), and an EOC.

The Chester County EOP documents the county's emergency preparedness planning. The EOP includes county-specific emergency response procedures during significant emergency events. Chester County's EOP complies with the National Incident Management System (NIMS) and is updated every 2 years. The updated risk assessment information from this HMP will be incorporated into subsequent updates to the EOP.

### Mutual Aid Agreements

Chester County has mutual aid agreements (formal agreements) with the contiguous Pennsylvania counties as a result of the Pennsylvania Intrastate Mutual Assistance Program. Every county participates in this program. Chester County is part of a larger county consortium, the Southeastern Pennsylvania Regional Task Force (SEPA-RTF), which works together and shares resources during times of emergency. Originally formed in response to a growing awareness of the threat of terrorism, the Task Force's focus has broadened to include an all-hazards approach. SEPA-RTF works to prevent, prepare for, respond to, and recover from all types of emergencies and disasters. This intergovernmental agreement is between the following counties:

- Bucks
- Chester
- Delaware
- Montgomery
- Philadelphia

### Pulsepoint

The county is a participating member in Pulsepoint, an application (app) that empowers everyday citizens to provide life-saving assistance to victims of sudden cardiac arrest. App users who have indicated they are trained in cardiopulmonary resuscitation (CPR) and willing to assist in case of an emergency can be notified if someone nearby is having a cardiac emergency and may require CPR. If the cardiac emergency is in a public place, the location-aware application will alert users in the vicinity of the need for CPR simultaneous with the dispatch of advanced medical care. The application also directs these potential rescuers to the exact location of the closest Automated External Defibrillator (AED) (Chester County n.d.).

### Regional Planning Initiatives

Chester County also assists in county or regional planning and preparation for the following:

- Local (municipal) EOPs



- Medical facilities
- Dams
- Airports
- Pandemic
- Mass casualty/fatality incidents
- Counterterrorism preparedness
- Special events, such as concerts, parades, etc.
- School emergency planning
- Day care, group home, and special needs facilities
- Superfund Amendments and Reauthorization Act of 1986 (SARA) – The Local Emergency Planning Committee program is based on the SARA of 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 that informs the citizens of chemicals used, manufactured, and stored locally.
- In cooperation with the American Red Cross, the county has designated shelters that may be used during emergencies and disasters.

### Local Emergency Management Capabilities

According to Pennsylvania Title 35 (Emergency Management Services Code), Chapter 75, the following stipulations apply:

- 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.
- The governing body of a political subdivision may declare a local disaster emergency 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 accomplish the following:
  - Prepare, maintain, and keep current a disaster emergency management plan for (1) the prevention and minimization of injury and damage caused by a disaster, (2) prompt and effective response to disaster, and (3) disaster emergency relief and recovery consistent with the Pennsylvania Emergency Management Plan.
  - Establish, equip, and staff an EOC (integrated 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 ensure 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 a disaster. Execute and enforce such rules and orders adopted by the agency, 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 EOC all emergency management plans, rules, and orders of the Governor and PEMA.
  - 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 first 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.

All 73 municipalities in Chester County have an Emergency Management Coordinator and an Emergency Operations Plan to meet the requirements of Pennsylvania Title 35 (Emergency Management Services Code), Chapter 75.

### **Mutual Aid Agreements**

Chester County has formal mutual aid agreements in place with its municipalities.

### **Emergency Operations Centers**

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 for providing emergency response services to their municipality, consisting of EMS, fire, and police. If a municipality does not have one of these providers in their community, they should have mutual aid agreements with an adjacent political subdivision or the Commonwealth (e.g., law enforcement coverage by the Pennsylvania State Police [PSP]) to respond.

### **Monitoring Systems**

The municipalities may also be equipped with several systems to monitor emergency information and warnings, including the Radio Amateur Civil Emergency Service (RACES) and the National Weather Service (NWS), which have been described previously.

### **Emergency Response Planning**

The municipalities may also assist with planning for:

1. Municipal EOPs







2. Medical facilities
3. Dams
4. Counterterrorism preparedness
5. Special events
6. School emergency planning
7. Day care, group homes, and special needs facilities
8. Evacuation

A summary of existing federal, state, regional, and county programs (regulatory and otherwise) to manage specific hazard risks is provided 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 through other regulatory programs at the federal and state levels.

### Participation in the National Flood Insurance Program

According to FEMA’s 2002 NFIP: Program Description, the U.S. Congress established the NFIP with the passage of the National Flood Insurance Act of 1968 (FEMA 2002). 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 alternative to disaster assistance and reduce the escalating costs of repairing damage to buildings and their contents caused by floods (FEMA 2002).

NFIP-participating communities in Chester County are required to adopt a flood damage prevention ordinance (also sometimes called a “floodplain” or “floodplain management” ordinance) and update this ordinance whenever the regulatory NFIP Flood Insurance Rate Maps (FIRM) are officially updated. The Pennsylvania Department of Community and Economic Development (PA DCED) (the statutorily-identified agency responsible for NFIP coordination) and PEMA (the agency that provides NFIP coordination across the Commonwealth) provide support to municipalities by providing suggested text for floodplain management ordinances.

All of the county’s municipalities participate in the NFIP. FIRMs for Chester County’s municipalities were made effective in September 2017. All participating municipalities have adopted a floodplain ordinance, and many have adopted a stormwater management ordinance.

The municipalities’ floodplain administrators, who are often either the code enforcement officer or zoning officer for the municipality, locally enforce the floodplain ordinances. Throughout Chester County, all municipalities enforce the Uniform Construction Code, and most enforce zoning regulations. Rather than using a specific Floodplain Development Permit, the county’s municipalities use a zoning or building permit application that includes a space for applicants to state whether the proposed development is in the floodplain. The permit application reviewer confirms whether the property in question is in the floodplain. If it is, the municipal floodplain administrator reviews the proposed development against the municipality’s floodplain management ordinance. The floodplain administrator conducts similar reviews of any revisions to the permit application until all requirements are met. As the proposed activity is conducted, the floodplain administrator works with the code enforcement officer and/or zoning officer to conduct inspections and ensure that the proposed activity is carried out as it was permitted.

NFIP-participating communities in Chester County are required to make current NFIP FIRMs 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. Floodplain administrators provide information about mapping to their residents using established outreach methods, such as municipal websites, newsletters,



and mailings. At the time of this plan update, the Chester County FEMA Digitized Flood Insurance Rate Maps (DFIRM) (dated September 2017) were used to evaluate exposure and determine potential future losses.

Floodplain administrators also use established outreach methods to provide information about flood insurance to residents and business owners. They can provide information on the availability of flood insurance, how to obtain a flood insurance policy, and methods to determine the appropriate level of coverage.

Municipal participation in and compliance with the NFIP is supported at the federal level by FEMA Region III and the Insurance Services Office (ISO) and at the state level by the PA DEP, PA DCED, and PEMA. The County’s Planning Commission and Conservation District also support flood mitigation efforts, associated training, and public education and awareness programs. Table 5-1 shows recent Community Assistance Visits for each municipality.

**Table 5-1. Community Assistance Visits (CAV)**

Municipality	CID	CAV Date	Municipality	CID	CAV Date
Atglen Borough	420273C	---	North Coventry Township	420283C	9/18/1981
Avondale Borough	421473C	10/29/1991	Oxford Borough	420284C	1/3/1991
Birmingham Township	421474C	5/28/1987	Parquesburg Borough	422277C	---
Caln Township	422247C	2/10/2006	Penn Township	421487C	---
Charlestown Township	421475C	---	Pennsbury Township	420285C	11/5/1992
Coatesville City	420274C	6/7/1991	Phoenixville Borough	420287C	9/29/2011
Downingtown Borough	420275C	9/19/2011	Pocopson Township	420286C	9/3/1986
East Bradford Township	420276C	9/9/2011	Sadsbury Township	421488C	---
East Brandywine Township	421476C	---	Schuylkill Township	421489C	10/28/1991
East Caln Township	421477C	7/24/1985	South Coatesville Borough	420288C	---
East Coventry Township	421478C	11/20/1987	South Coventry Township	421490C	7/24/1992
East Fallowfield Township	421479C	---	Spring City Borough	420289C	8/9/1983
East Goshen Township	420277C	4/23/1993	Thornbury Township	420290C	1/31/1979
East Marlborough Township	421480C	---	Tredyffrin Township	420291C	7/23/1992
East Nantmeal Township	421481C	10/28/1991	Upper Oxford Township	422278C	---
East Nottingham Township	421482C	---	Upper Uwchlan Township	421491C	11/19/1992
East Pikeland Township	421483C	2/3/1987	Uwchlan Township	421492C	11/19/1992
East Vincent Township	420278C	1/17/1981	Valley Township	421206C	---
East Whiteland Township	420279C	---	Wallace Township	421493C	---
Easttown Township	422600C	7/24/1985	Warwick Township	421494C	10/28/1991
Elk Township	422286C	---	West Bradford Township	421495C	2/3/1987
Elverson Borough	422287C	1/25/2008	West Brandywine Township	421496C	---
Franklin Township	422288C	---	West Caln Township	421497C	---
Highland Township	422289C	---	West Chester Borough	420292C	9/27/2011
Honey Brook Borough	422692C	---	West Fallowfield Township	422602C	---
Honey Brook Township	422290C	4/27/1990	West Goshen Township	420293C	9/22/2011
Kennett Square Borough	420280C	1/3/1991	West Grove Borough	422279C	---
Kennett Township	422586C	---	West Marlborough Township	421498C	10/28/1991
London Britain Township	422273C	---	West Nantmeal Township	422280C	---
London Grove Township	422274C	---	West Nottingham Township	421151C	---
Londonderry Township	421484C	---	West Pikeland Township	422281C	---



Municipality	CID	CAV Date	Municipality	CID	CAV Date
Lower Oxford Township	421485C	---	West Sadsbury Township	421499C	10/28/1991
Malvern Borough	420281C	1/23/2008	West Vincent Township	420295C	11/10/1980
Modena Borough	420282C	---	West Whiteland Township	420294C	12/15/1980
New Garden Township	422275C	---	Westtown Township	422282C	---
New London Township	422276C	---	Willistown Township	420273C	---
Newlin Township	421486C	---			

Flood hazard risk management in Chester County is further supported by the Act 167 “Watersheds, An Integrated Water Resources Management Plan for Chester County, PA and its Watersheds” (see above). Ideally, this plan will continue to reduce the effects of flooding in certain areas of the county.

Additional information on the NFIP program and its implementation within the county can be found in the flood hazard profile in Section 4.3.7.

### 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 the program was to encourage communities, through flood insurance rate adjustments, to implement standards beyond the minimum required in order to:

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

The 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.

There are 10 CRS classes that provide varied reduction in insurance premiums. Class 1 requires the most credit points and gives the largest premium reduction; Class 10 receives no premium reduction. CRS premium discounts on flood insurance range from 5 percent for Class 9 communities up to 45 percent for Class 1 communities. The CRS recognizes 18 creditable activities that are organized under four categories: Public Information, Mapping and Regulations, Flood Damage Reduction, and Flood Preparedness.

Currently, no Chester County municipalities participate in the CRS Program. Increased participation will be supported by the county and will be promoted through the local emergency management coordinators, as identified in the updated mitigation strategies.

### Municipal Capabilities

Participating municipalities in this planning effort were provided with a Capability Assessment Survey. Table 5-2 summarizes the responses of the municipalities based on planning and regulatory capability, supplemented by information received from the county regarding municipal capabilities. Detailed information regarding Chester County municipalities’ planning and regulatory capabilities can be found in the municipal survey responses provided in Appendix D.



Table 5-2. Planning and Regulatory Capability

Municipality	Hazard Mitigation Plan	EOP	Disaster Recovery Plan	Evacuation Plan	COOP Plan	NFIP	NFIP - CRS	Floodplain Regulations	Floodplain Mgmt. Plan	Zoning Regulations	Subdivision Regulations	Comprehensive Land Use Plan (or General, Master, or Growth Mgmt. Plan)	Open Space Mgmt. Plan	Stormwater Mgmt. Plan/Ordinance	Natural Resource Protection Plan	Capital Improvements Plan	Economic Dev. Plan	Historic Preservation Plan	Farmland Preservation	Building Code	Fire Code	Other
Chester County	X	X	-	X	X	N/A	N/A	N/A	-	N/A	N/A	X	X	X	X	X	X	X	X	N/A	X	
Atglen Borough	X	X				X	-	X	X	X	X	X		X		X		-		X		
Avondale Borough	X	X				X	-	X	X	X	X	X		X		-		-		X	-	
Birmingham Township	X	X				X	-	X	X	X	X	X		X		-		X		X		
Caln Township	X	X	+	+	+	X	-	X	+	X	X	X	X	X	X	X	X	X	-	X	X	
Charlestown Township	X	X				X	-	X	X	X	X	X		X		-		-		X		
Coatesville City	X	X				X	-	X	X	X	X	X		X		X		X		X		
Downingtown Borough	X	X				X	-	X	X	X	X	X		X		X		X		X		
East Bradford Township	X	X	-	-	-	X	-	X	X	X	X	X	X	X	X	X	-	X	-	X	X	
East Brandywine Township	X	X	-	X	-	X	-	X	X	X	X	X	X	X	X	X	-	X	X	X	X	
East Caln Township	X	X				X	-	X	X	X	X	X		X		-		-		X		
East Coventry Township	X	X				X	-	X	X	X	X	X		X		X		X		X		
East Fallowfield Township	X	X				X	-	X	X	X	X	X		-		-		X		X		
East Goshen Township	X	X	-	-	-	X	-	X	-	X	X	X	X	X	-	X	-	-	-	X	X	
East Marlborough Township	X	X	-	-	-	X	-	-	-	X	X	X	X	X	-	X	-	-	-	X	-	
East Nantmeal Township	X	X				X	-	X	X	X	X	X		X		-		X		X		
East Nottingham Township	X	X				X	-	X	X	X	X	X		X		-		X		X		
East Pikeland Township	X	X	-	-	-	X	-	X	X	X	X	X	X	X	X	-	X	X	-	X	X	
East Vincent Township	X	X				X	-	X	X	X	X	X		X		X		-		X		
East Whiteland Township	X	X	-	-	+	X	-	X	-	X	X	X	+	X	X	X	-	X	-	X	X	
Easttown Township	X	X				X	-	X	X	X	X	X		X		X		X		X		
Elk Township	X	X			-	X	-	X	X	X	X	X		X		-		-		X		



Municipality	Hazard Mitigation Plan	EOP	Disaster Recovery Plan	Evacuation Plan	COOP Plan	NFIP	NFIP – CRS	Floodplain Regulations	Floodplain Mgmt. Plan	Zoning Regulations	Subdivision Regulations	Comprehensive Land Use Plan (or General, Master, or Growth Mgmt. Plan)	Open Space Mgmt. Plan	Stormwater Mgmt. Plan/Ordinance	Natural Resource Protection Plan	Capital Improvements Plan	Economic Dev. Plan	Historic Preservation Plan	Farm and Preservation	Building Code	Fire Code	Other
Elverson Borough	X	X				X	-	X	X	X	X	X		X		X		X		X		
Franklin Township	X	X				X	-	X	X	X	X	X		X		X		X		X		
Highland Township	X	X				X	-	X	X	X	X	X		X		X		-		X		
Honey Brook Borough	X	X	X	X	X	X	-	+	+	X	X	X	X	X	X	X	+	+	+	-	+	
Honey Brook Township	X	X	X	X	X	X	-	+	+	X	X	X	X	X	X	X	+	+	+	-	+	
Kennett Square Borough	X	X		X	X	X	-	X	X	X	X	X	X	X		X	X	X		X		
Kennett Township	X	X	-	-	-	X	-	X	X	X	X	X	-	X	-	X	-	X	-	X	-	
London Britain Township	X	X	-	-	-	X	-	X	X	X	X	X	X	X	-		-	X	X	X	X	-
London Grove Township	X	X	-	-	X	X	-	X	X	X	X	X	X	X	-	X	-	X	X	X	X	
Londonderry Township	X	X	-	-	-	X	-	X	X	X	X	X	-	X	-	-	-	-	-	X	-	
Lower Oxford Township	X	X	-	X	-	X	-	X	-	X	X	X	X	X	-	X	-	X	X	X	X	
Malvern Borough	X	X				X	-	X	X	X	X	X		X		X		X		X		
Modena Borough	X	X				X	-	X	X	X	X	X		X		-		X		X		
New Garden Township	X	X	-	-	-	X	-	X	X	X	X	X	X	X	X	-	-	X	-	X	X	
New London Township	X	X				X	-	X	X	X	X	X		X		-		X		X		
Newlin Township	X	X				X	-	X	X	X	X	X		X		-		X		X		
North Coventry Township	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X	-	-	-	-	X	X	
Oxford Borough	X	X	X	X	-	X	-	X	X	X	X	X	-	+	-	+	X	X	-	X	-	
Parkesburg Borough	X	X	X	X	X	X	-	X	X	X	X	X	-	X	-	-	-	-	X	X	X	
Penn Township	X	X				X	-	X	X	X	X	X		X		-		X		X		
Pennsbury Township	X	X	-	-	X	X	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	
Phoenixville Borough	X	X				X	-	X	X	X	X	X		X		X		X		X		
Pocopson Township	X	X				X	-	X	X	X	X	X		X		-		X		X		
Sadsbury Township	X	X				X	-	X	X	X	X	X		X		X		X		X		



Municipality	Hazard Mitigation Plan	EOP	Disaster Recovery Plan	Evacuation Plan	COOP Plan	NFIP	NFIP – CRS	Floodplain Regulations	Floodplain Mgmt. Plan	Zoning Regulations	Subdivision Regulations	Comprehensive Land Use Plan (or General, Master, or Growth Mgmt. Plan)	Open Space Mgmt. Plan	Stormwater Mgmt. Plan/Ordinance	Natural Resource Protection Plan	Capital Improvements Plan	Economic Dev. Plan	Historic Preservation Plan	Farmland Preservation	Building Code	Fire Code	Other
Schuylkill Township	X	X				X	-	X	X	X	X	X		X		-		X		X		
South Coatesville Borough	X	X				X	-	X	X	X	X	X		X		-		X		X		
South Coventry Township	X	X				X	-	X	X	X	X	X		X		-		X		X		
Spring City Borough	X	X				X	-	X	X	X	X	X		X		-		-		X		
Thornbury Township	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X	X	-	X	-	X	X	
Tredyffrin Township	X	X				X	-	X	X	X	X	X		X		-		X		X		
Upper Oxford Township	X	X	-	-	-	X	-	X	X	X	X	X	X	X	X	-	-	X	X	X	-	
Upper Uwchlan Township	X	X	+	X	X	X	-	X	X	X	X	X	X	X	-	X	-	X	-	X	-	
Uwchlan Township	X	X				X	-	X	X	X	X	X		X		X		X		X		
Valley Township	X	X				X	-	X	X	X	X	X		X		-		X		X		
Wallace Township	X	X				X	-	X	X	X	X	X		X		-		X		X		
Warwick Township	X	X				X	-	X	X	X	X	X		X		-		X		X		
West Bradford Township	X	X				X	-	X	X	X	X	X		X		X		X		X		
West Brandywine Township	X	X				X	-	X	X	X	X	X		X		X		X		X		
West Caln Township	X	X	-	X	-	X	-	X	-	X	X	X	X	X	-	+	-	X	X	X	X	
West Chester Borough	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
West Fallowfield Township	X	X				X	-	X	X	X	X	X		X		X		-		X		
West Goshen Township	X	X				X	-	X	X	X	X	X		X		-		-		X		
West Grove Borough	X	X	-	-	-	X	-	X	X	X	X	-	X	-	-	-	-	-	-	X	-	
West Marlborough Township	X	X				X	-	X	X	X	X	X		X		-		-		X		
West Nantmeal Township	X	X				X	-	X	X	X	X	X		X		-		X		X		
West Nottingham Township	X	X	-	-	-	X	-	-	X	X	X	X	X	X	-	-	-	X	-	X	-	
West Pikeland Township	X	X				X	-	X	X	X	X	X		X		-		X		X		
West Sadsbury Township	X	X				X	-	X	X	X	X	X		X		-		-		X		



Municipality	Hazard Mitigation Plan	EOP	Disaster Recovery Plan	Evacuation Plan	COOP Plan	NFIP	NFIP – CRS	Floodplain Regulations	Floodplain Mgmt. Plan	Zoning Regulations	Subdivision Regulations	Comprehensive Land Use Plan (or General, Master, or Growth Mgmt. Plan)	Open Space Mgmt. Plan	Stormwater Mgmt. Plan/Ordinance	Natural Resource Protection Plan	Capital Improvements Plan	Economic Dev. Plan	Historic Preservation Plan	Farmland Preservation	Building Code	Fire Code	Other
West Vincent Township	X	X				X	-	X	X	X	X	X		X		-		-		X		
West Whiteland Township	X	X	X	-	-	X	-	X	-	X	X	X	X	X	X	X	-	X	-	X	X	
Westtown Township	X	X				X	-	X	X	X	X	X		X		X		X		X		
Willistown Township	X	X				X	-	X	X	X	X	X		X		X		X		X		

Notes:

“X” indicates that the municipality currently has this capability in place.

“-” indicates no capability is currently in place.

“+” indicates that the capability is under development.

“N/A”: Not applicable

Blank space indicates no response was received from the municipality.



### 5.2.2 Administrative and Technical Capability

Administrative capability is described as the adequacy of departmental and personnel resources for the implementation of mitigation-related activities. Technical capability relates to an adequacy of knowledge and technical expertise of local government employees or the ability to contract outside resources for this expertise in order to effectively execute mitigation activities. Common examples of skillsets and technical personnel needed for hazard mitigation include: planners with knowledge of land development/management practices, engineers or professionals trained in construction practices related to buildings and/or infrastructure (e.g., building inspectors), planners or engineers with an understanding of natural and/or human-caused hazards, emergency managers, floodplain managers, land surveyors, scientists familiar with hazards in the community, staff with the education or expertise to assess community vulnerability to hazards, personnel skilled in geographic information systems, resource development staff or grant writers, and fiscal staff to handle complex grant application processes.

Municipalities are further supported by county, regional, state, and federal administrative and technical capabilities. For this HMP, the majority of support agencies and resources have been identified and referenced throughout this plan update.

It is noted that the county and many of its municipalities have identified specific mitigation initiatives described in this plan update, which will help build and enhance mitigation-related administrative and technical capabilities in Chester County.

#### Federal and Commonwealth Capabilities

Federal agencies that can provide technical assistance for mitigation activities include but are not limited to:

- Department of Housing and Urban Development
- Department of Agriculture
- Economic Development Administration
- Emergency Management Institute
- Environmental Protection Agency
- FEMA
- Small Business Administration
- U.S. Army Corps of Engineers

Commonwealth agencies that can provide technical assistance for mitigation activities include but are not limited:

- Pennsylvania Department of Community and Economic Development
- Pennsylvania Department of Conservation and Natural Resources
- Pennsylvania Department of Environmental Protection
- Pennsylvania Emergency Management Agency
- Pennsylvania Silver Jackets

#### Municipal Capabilities

Participating municipalities in this planning effort were provided with a capabilities survey. Table 5-3 summarizes the responses of the municipalities based on administrative and technical capability. Copies of the individual municipal responses are included in Appendix D.





Table 5-3. Administrative and Technical Capability

Municipality	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	Emergency Manager	NFIP Floodplain Administrator	Land Surveyors	Scientists or Staff familiar with the hazards of the community	Personnel skilled in GIS and/or the FEMA HAZUS program	Grant Writers or Fiscal Staff to handle large/complex grants	Staff with expertise or training in Benefit-Cost Analysis	Other
Chester County	X	X	X	X	X	X	X	X	X	-	
Atglen Borough	X	-	-	X	X			-			
Avondale Borough	X	-	-	X	X			-			
Birmingham Township	X	X	X	X	X			-			
Caln Township	X	X	X	X	X	-	-	X	X	X	
Charlestown Township	X	X	X	X	X			-			
Coatesville City	X	X	X	X	X			-			
Downingtown Borough	X	X	X	X	X			X			
East Bradford Township	X	X	X	X	X	X	-	X	X	X	
East Brandywine Township	X	X	X	X	X	X	X	X	-	-	
East Caln Township	X	X	X	X	X			X			
East Coventry Township	X	X	X	X	X			X			
East Fallowfield Township	X	X	X	X	X			X			
East Goshen Township	-	-	X	X	X	-	X	-	X	X	
East Marlborough Township	-	-	-	X	X	-	-	-	-	-	
East Nantmeal Township	X	X	X	X	X			-			
East Nottingham Township	X	X	X	X	X			-			
East Pikeland Township	-	-	-	X	X	-	-	-	X	-	
East Vincent Township	X	X	X	X	X			X			
East Whiteland Township	X	X	X	X	X	-	-	X	X	X	
Easttown Township	X	X	X	X	X			X			
Elk Township	X	X	X	X	X			-			
Elverson Borough	X	X	X	X	X			-			
Franklin Township	X	X	X	X	X			X			
Highland Township	X	X	X	X	X			-			
Honey Brook Borough	-	X	X	X	X	-	-	-	-	-	
Honey Brook Township	-	X	X	X	X	-	-	-	-	-	
Kennett Square Borough	X	X	X	X	X			X			
Kennett Township	-	-	-	X	X	-	X	-	-	X	
London Britain Township	X	X	X	X	X	-	-	-	X	-	
London Grove Township	X	X	X	X	X	-	X	X	-	X	
Londonderry Township	-	-	-	X	X	-	-	-	-	-	



Municipality	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	Emergency Manager	NFIP Floodplain Administrator	Land Surveyors	Scientists or Staff familiar with the hazards of the community	Personnel skilled in GIS and/or the FEMA HAZUS program	Grant Writers or Fiscal Staff to handle large/complex grants	Staff with expertise or training in Benefit-Cost Analysis	Other
Lower Oxford Township	X	-	X	X	X	-	-	-	-	-	
Malvern Borough	X	X	X	X	X			X			
Modena Borough	X	X	X	X	X			X			
New Garden Township	X	-	X	X	X	X	-	-	X	X	
New London Township	X	X	X	X	X			X			
Newlin Township	X	X	X	X	X			-			
North Coventry Township	X	X	X	X	X	-	-	-	X	X	
Oxford Borough	-	-	-	X	X	-	-	X	X	-	
Parkesburg Borough	-	X	X	X	X	-	-	X	X	X	
Penn Township	X	X	X	X	X			-			
Pennsbury Township	X	X	X	X	X	-	-	-	-	X	
Phoenixville Borough	X	X	X	X	X			X			
Pocopson Township	X	X	X	X	X			-			
Sadsbury Township	X	X	X	X	X			X			
Schuylkill Township	X	X	X	X	X			X			
South Coatesville Borough	X	X	X	X	X			X			
South Coventry Township	X	X	X	X	X			-			
Spring City Borough	X-	X	X	X	X			X			
Thornbury Township	-	-	-	X	X	-	-	-	X	-	
Tredyffrin Township	X	X	X	X	X			X			
Upper Oxford Township	X	-	-	X	X	-	-	-	-	-	
Upper Uwchlan Township	X	X	X	X	X	X	X	X	X	X	
Uwchlan Township	X	X	X	X	X			X			
Valley Township	X	X	X	X	X			X			
Wallace Township	X	X	X	X	X			-			
Warwick Township	X	X	X	X	X			-			
West Bradford Township	X	X	X	X	X			X			
West Brandywine Township	X	X	X	X	X			-			
West Caln Township	-	X	X	X	X	-	-	-	-	-	
West Chester Borough	-	-	-	X	X	-	-	-	-	-	
West Fallowfield Township	X	X	X	X	X			X	X		
West Goshen Township	-	X	X	X	X			-	-	-	
West Grove Borough	-	-	-	X	X	-	-	-	-	-	



Municipality	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	Emergency Manager	NFIP Floodplain Administrator	Land Surveyors	Scientists or Staff familiar with the hazards of the community	Personnel skilled in GIS and/or the FEMA HAZUS program	Grant Writers or Fiscal Staff to handle large/complex grants	Staff with expertise or training in Benefit-Cost Analysis	Other
West Marlborough Township	X	-	-	X	X			-			
West Nantmeal Township	X	X	X	X	X			-			
West Nottingham Township	X	X	X	X	X	-	-	-	-	-	
West Pikeland Township	X	X	X	X	X			X			
West Sadsbury Township	X	X	X	X	X			-			
West Vincent Township	X	X	X	X	X			X			
West Whiteland Township	X	X	X	X	X	-	-	X	X	X	
Westtown Township	X	X	X	X	X			X			
Willistown Township	X	X	X	X	X			X			

Notes:  
 “X” indicates that the municipality currently has this capability in place.  
 “-” indicates no capability is currently in place.  
 Blank space indicates no response was received from the municipality.

### 5.2.3 Financial 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 myriad federal and state loan and grant programs.

Federal mitigation grant funding (Stafford Act, Sections 404 and 406) (FEMA 2000) is available to all communities with a current HMP (this plan); however, most of these grants require a “local share” in the range of 10 to 25 percent of the total grant amount.

### Federal Hazard Mitigation Funding Opportunities

#### The Hazard Mitigation Grant Program

The Hazard Mitigation Grant Program (HMGP) (Stafford Act, Sections 404 and 406) is a post-disaster mitigation program made available to states by FEMA after each federal disaster declaration. The HMGP can provide up to 75 percent funding for hazard mitigation measures and can be used to fund cost-effective projects to protect public or private property in an area covered by a federal disaster declaration or that projects to reduce the likely damage from future disasters. Examples of projects include acquisition and demolition of structures in hazard-prone areas, flood proofing, 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 HMP. Applicants eligible for the HMGP include 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 for ranking and submission 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.

Sections 404 and 406 of the Stafford Act (hazard mitigation funding) are two distinct criteria associated with mitigation funding. Participation in FEMA 404 HMGP may cover mitigation activities, including raising, removing, relocating, or replacing structures within flood hazard areas. FEMA 406 HMGP is applied to parts of a facility that were actually damaged by a disaster and the mitigation measures that provide protection from subsequent events.

### Building Resilient Infrastructure and Communities (BRIC) Program

Building Resilient Infrastructure and Communities (BRIC) will support states, local communities, tribes, and territories as they undertake hazard mitigation projects, reducing the risks they face from disasters and natural hazards. BRIC is a new FEMA pre-disaster hazard mitigation program that replaces the former Pre-Disaster Mitigation (PDM) program.

The BRIC program guiding principles are supporting communities through capability- and capacity-building; encouraging and enabling innovation; promoting partnerships; enabling large projects; maintaining flexibility; and providing consistency.

### Flood Mitigation Assistance Program

Flood Mitigation Assistance (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. 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 limited and, as with the HMGP, individuals cannot apply directly. Applications must come from local governments or other eligible organizations.

The federal government cost share for an FMA project is generally 75 percent, but can be 90 percent to protect repetitive loss properties, and 100 percent to protect severe repetitive loss properties. At least 25 percent of the total eligible costs must be provided by a non-federal source, and of this 25 percent, no more than half can be provided as in-kind contributions from third parties. At a minimum, a FEMA-approved local HMP is required before a project can be approved. FMA funds are distributed from FEMA to the Commonwealth. PEMA serves as the grantee and program administrator for FMA.

As of fiscal year 2013, the Severe Repetitive Loss and Repetitive Flood Claims Programs were dismantled and incorporated into the FMA Program. As a result, residential and non-residential properties currently insured with NFIP are eligible to receive FMA funds as long as they meet either the Repetitive Loss Properties (RLP) or Severe Repetitive Loss (SRL) property definitions, as described in Section 4.3.7 of this plan.

### 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. General types of assistance that may be provided, should the President of the United States declare the event a major disaster, include the following:

- Individual Assistance – Provides help for homeowners, renters, businesses, and some nonprofit 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 and \$40,000 to cover losses to personal property. 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. Nonprofit 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 nonprofit 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.

### U.S. Department of Housing and Urban Development Community Development Block Grants

The U.S. Department of Housing and Urban Development (HUD) Community Development Block Grants (CDBG) are federal funds intended to provide low- and moderate-income citizens with decent housing, a suitable living environment, and expanded economic opportunities. Eligible activities include improvement of community facilities, 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 times of “urgent need” (for example, 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.

### Additional Federal Resources

*Weatherization Assistance Program:* Minimizes the adverse effects of high-energy costs on low-income, elderly, and disabled citizens through client education activities and weatherization services, such as heating system modifications and insulation (US DOE 2011).

*Section 108 Loan Guarantee Programs:* Provides loan guarantees as security for federal loans for acquisition, rehabilitation, relocation, clearance, site preparation, special economic development activities, and construction of certain public facilities and housing (HUD 2011).

*U.S. Department of Agriculture:* Provides disaster assistance through the following:

- The Emergency Conservation Program provides emergency funding for farmers to rehabilitate farmland damaged by natural disasters and for carrying out emergency water conservation measures during periods of severe drought.
- The Non-Insured Crop Disaster Assistance Program provides financial assistance for non-insurable crop losses and planting prevented by disasters.

*Emergency Watershed Protection Program:* Undertakes emergency measures, including the purchase of floodplain easements for runoff retardation and soil erosion prevention to safeguard lives and property from floods, drought, and the products of erosion on any watershed whenever fire, flood, or any other natural occurrence is causing or has caused a sudden impairment of the watershed (NRCS 2011). It is not necessary for an emergency to be declared by the President for an area to be eligible for assistance. The program objective is to assist sponsors and individuals in implementing emergency measures to relieve imminent hazards to life and property created by a natural disaster. Activities include providing financial and technical assistance to remove debris from streams, protecting destabilized stream banks, establishing cover on critically eroding lands, repairing conservation practices, and purchasing of floodplain easements. The program is designed to establish recovery measures.

### Commonwealth Hazard Mitigation Funding Opportunities

Commonwealth programs that may provide financial support for mitigation activities include but are not limited to:

- Community Conservation Partnerships Program



- Community Revitalization Program
- Floodplain Land Use Assistance Program
- Growing Greener Program
- Keystone Communities Grant Program
- Local Government Capital Projects Loan Program
- Land Use Planning and Technical Assistance Program
- Pennsylvania Small Water and Sewer Program
- Pennsylvania Heritage Areas Program
- Pennsylvania Recreational Trails Program
- Shared Municipal Services
- Technical Assistance Program

### Marcellus Shale Legacy Fund - Act 13 of 2012

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*Watershed Restoration and Protection Program (WRPP):* Act 13 of 2012 establishes the Marcellus Legacy Fund and allocates funds to the Commonwealth Financing Authority for watershed restoration and protection projects. The overall goal of this program is to restore, and maintain restored stream reaches impaired by the uncontrolled discharge of non-point source polluted runoff, and ultimately to remove these streams from the PA DEP’s Impaired Waters list.

*Greenways, Trails and Recreation Program (GTRP):* In addition, Act 13 of 2012 allocates funds to the Commonwealth Financing Authority (the “Authority”) for planning, acquisition, development, rehabilitation, and repair of greenways, recreational trails, open space, parks and beautification projects. Projects can involve development, rehabilitation, and improvements to public parks, recreation areas, greenways, trails, and river conservation.

*Flood Mitigation Projects:* Finally, Act 13 of 2012 allocates funds to the Commonwealth Financing Authority (the “Authority”) for funding statewide initiatives to assist with flood mitigation projects.

While most of the identified fiscal capabilities are available to all of the municipalities in Chester County, the extent to which communities have leveraged these funding sources varies widely. It is expected that communities familiar with accessing grant programs will continue to pursue those grant sources, as appropriate.

### Municipal Capabilities

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The implementation of mitigation actions requires time and fiscal resources. While some mitigation actions are less costly than others, it is important that funds are available locally to implement policies and projects. Financial resources are particularly important if jurisdictions are trying to take advantage of Commonwealth or federal mitigation grant funding opportunities that require local-match contributions.

### Capital Improvement Planning

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Capital improvement plans are often recommended by counties to their municipalities because these plans help identify 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 county and its 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.



### Special Purpose Taxes

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Communities may exercise their taxing authority to raise funds for any project they see fit. This includes special taxes to fund mitigation measures. Spreading the cost of a community project among the community's taxpayers helps provide the greatest public good for relatively low individual cost.

### Gas/Electric Utility Fees

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In the same way that special taxes can be levied to fund mitigation projects, a community can use another avenue for financing a project, which includes dedicating a portion of homeowners' gas and electric utilities' fees to upgrade and maintain the related infrastructure. Burying transmission lines, thereby mitigating from the effects of winds and ice storms, is expensive. These fees help to offset that cost.

### Water/Sewer Fees

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#### Water Authorities and Fees

Water authorities are multipurpose authorities with water projects, many of which operate both water and sewer systems. The financing of water systems for lease back to the municipality is among the principal activities of the local government facilities' financing authorities. An operating water authority issues bonds to purchase existing facilities or to construct, extend, or improve a system. The primary source of revenue is user fees based on metered usage.

The cost of constructing or extending water supply lines can be funded by special assessments against abutting property owners. Tapping fees also help fund water system capital costs. Water utilities are directly operated by municipal governments and by privately owned public utilities regulated by the Pennsylvania Public Utility Commission. The PA DEP has a program to assist with consolidation of small individual water systems to make system upgrades more cost-effective.

The Chester County Board of Commissioners established the Chester County Water Resources Authority (CCWRA) in 1961 under the PA Municipal Authorities Act as a county-wide municipal authority for the purposes of providing flood protection and water resources management for Chester County. CCWRA owns and operates four regional flood control facilities that provided flood protection for 23 municipalities, and a water supply reservoir that serves as a water source for the greater Coatesville region. CCWRA provides planning and technical information; guidance; and assistance to municipalities in other aspects of water resources management, including flood mitigation, stormwater management, water supply planning, source water management, and protection, groundwater management and protection, and stream water quality restoration and protection.

#### Sewer Authorities and Fees

Sewer authorities include multipurpose authorities with sewer projects. The authorities issue bonds to finance acquisition of existing systems or to finance construction, extension, and improvements. Sewer authority operating revenues originate from user fees. The fee frequently is based on the amount of water consumed, and payment is enforced by the ability to terminate service or the imposition of liens against real estate. In areas with no public water supply, flat rate charges are calculated on average use per dwelling unit.

### Stormwater Utility Fees

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Stormwater utility fees are assessed and collected to offset the cost of maintaining and upgrading stormwater management structures such as drains, retention ponds, and culverts.

### Development Impact Fees

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Development impact fees are one-time fees assessed to offset the cost of providing public services to a new development. They may be dedicated to providing the related new water or sewer infrastructure, roads, parks and recreational areas, libraries, schools, etc. The new infrastructure may be less vulnerable to hazard impacts.



General Obligation, Revenue, and/or Special Tax Bonds

Jurisdictions may simply decide to dedicate general fund or similar financing to implement hazard mitigation projects.

Partnering Arrangements or Intergovernmental Agreements

Intergovernmental cooperation is one manner of accomplishing common goals, solving mutual problems, and reducing expenditures. Chester County contains 73 municipalities. Each of these municipalities conducts its daily operations and provides various community services according to local needs and limitations. Each municipality varies in staff size, resource availability, fiscal status, service provision, constituent population, overall size, and vulnerability to the identified hazards.

Table 5-4. Fiscal Capability

Municipality	Capital Improvements Program	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
Chester County	X	X	X	N/A	N/A	N/A	-	-	-	
Atglen Borough	X	X						X		
Avondale Borough		X						X		
Birmingham Township		-						X		
Caln Township	X	X	X	-	X	-	X	X	-	
Charlestown Township		-						X		
Coatesville City	X	X						X		
Downingtown Borough	X	X						X		
East Bradford Township	X	-	-	-	-	-	-	X	X	
East Brandywine Township	X	X	X	-	X	-	X	X	X	
East Caln Township		X						X		
East Coventry Township	X	X						X		
East Fallowfield Township		X						X		
East Goshen Township	X	-	-	-	X	-	X	X	X	
East Marlborough Township	-	X	-	-	-	-	-	X	-	
East Nantmeal Township		X						X		
East Nottingham Township		X						X		
East Pikeland Township	-	-	-	-	-	-	-	X	-	
East Vincent Township	X	X			X			X		
East Whiteland Township	X	-	-	-	X	-	X	X	X	
Easttown Township	X	X						X		
Elk Township		X						X		
Elverson Borough	X	X						X		
Franklin Township	X	X						X		
Highland Township		X						X		





Municipality	Capital Improvements Program	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
Honey Brook Borough	X	-	-	X	X	X	X	X	X	
Honey Brook Township	X	-	-	X	X	X	X	X	X	
Kennett Square Borough	X	X			X		X	X	X	
Kennett Township	X	-	-	-	-	-	-	X	-	
London Britain Township	-	-	-	-	X	-	-	X	X	
London Grove Township	X	X	X	-	X	-	-	X	-	
Londonderry Township	-	-	-	-		-	-	X	-	
Lower Oxford Township	X	X	-	-	X	-	-	X	-	
Malvern Borough	X	-	-					X		
Modena Borough		X						X		
New Garden Township	X	X	X	-	X	-	X	X	X	
New London Township		-						X		
Newlin Township		-						X		
North Coventry Township	X	X	X	-	-	-	X	X	X	
Oxford Borough	-	X	-	-	X	-	-	X	X	
Parkesburg Borough	X	X	-	-	-	-	-	X	-	
Penn Township		-						X		
Pennsbury Township	X	-	X	X	X	X	X	X	-	
Phoenixville Borough	X	X						X		
Pocopson Township		-						X		
Sadsbury Township	X	X						X		
Schuylkill Township		-						X		
South Coatesville Borough		X						X		
South Coventry Township		-						X		
Spring City Borough		X						X		
Thornbury Township	X	-	-	-	-	-	-	X	-	
Tredyffrin Township		-						X		
Upper Oxford Township	-	-	-	-	-	-	X	X	X	
Upper Uwchlan Township	X	X	X	-	X	-	X	X	X	
Uwchlan Township	X	-			X			X		
Valley Township	X	X			X			X		
Wallace Township		-						X		
Warwick Township		-						X		
West Bradford Township	X	-						X		
West Brandywine Township	+	X			X			X		
West Caln Township	-	X	X	-	-	-	-	X	X	



Municipality	Capital Improvements Program	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
West Chester Borough	X	X	-	-	-	-	-	X	-	
West Fallowfield Township	X	-						X		
West Goshen Township	X	X	-	-	X	X	-	X	X	
West Grove Borough		X						X		
West Marlborough Township		-						X		
West Nantmeal Township	X	-						X		
West Nottingham Township	-	-	X	-	-	-	-	X	X	
West Pikeland Township		-						X		
West Sadsbury Township		-						X		
West Vincent Township		-						X		
West Whiteland Township	-	-	-	-	X	X	X	X	X	
Westtown Township	X	-						X		
Willistown Township	X	-						X		

Notes:

“X” indicates that the municipality currently has this capability in place.

“-” indicates no capability is currently in place.

Blank space indicates no response was received from the municipality.

### Political Capabilities

Political capability refers to a jurisdiction’s incentive or willingness to accomplish hazard mitigation objectives. Local decision makers may not rank hazard mitigation as a high priority task if there are other, more immediate political concerns. Unfortunately, it often takes a disaster to get people thinking about hazard mitigation. Responding to and recovering from a disastrous event can exhaust local resources, thereby elevating hazard mitigation to the forefront. Cooperation among elected officials, planning commission members, emergency management officials, and others is essential to achieve hazard mitigation objectives. Maintaining open lines of communication and sharing up-to-date information is a crucial step.

### Council of Governments

A Council of Governments (COG) is a general, multi-purpose, cooperative organization established to enable a group of municipalities to work together on mutually beneficial projects. A COG has a broad responsibility; it may study and propose new joint programs and projects and is almost always composed of elected officials. A variety of organizations work across municipal boundaries within Chester County and with the Western Chester County COG. In addition, regional emergency management groups have been developed in various areas usually centered on school district boundaries.

### 5.2.4 Education and Outreach

Education and outreach programs and methods are used to implement mitigation activities and communicate hazard-related information. Examples include obtaining certification in programs such as Firewise and StormReady and developing and communicating hazard awareness and safety information to residents.





At the municipal level, education and outreach capabilities vary. Some municipalities have the capability to handle outreach initiatives, while others rely on county resources. Several municipal websites post local plans and ordinances, and many municipalities post information regarding hazard-related topics. The local fire departments and emergency managers are active in the schools participating in programs, such as fire safety in the fall and attending other community activities to conduct outreach. Appendix D details the outreach and education conducted at the municipal level.

## Public Information Programs

### Flood Maps

Flood maps and flood data, including 2017 digital maps for Chester County, are available on FEMA's Map Service Center website as well as at the Chester County Water Resources Authority. County and municipality maps, tax maps, and property assessment records are available at the Assessment Office and the GIS Office and deeds are available at the Register and Recorder Office.

### Library Education Tools

Libraries have educational materials, available upon request, which are used at public speaking events or county meetings, when appropriate. Educational materials include 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, and winter storms
- Family disaster planning guides
- Homeland security information for businesses, family, individuals, neighborhoods, and schools
- Pandemic brochures

### Outreach Projects

Several organizations (both public and private sector) have developed outreach projects, educational tools, and training programs. The county promotes both online and traditional in-person programs to appeal to as wide an audience as possible.

- *ReadyPA Campaign*: Established by the Commonwealth of Pennsylvania, [www.readypa.org](http://www.readypa.org) is a website that aims to prepare the public for times of disaster by providing education on the risks within Pennsylvania, template emergency plans and kits, and information on ways to get involved with community organizations to help others.
- Emergency management courses are provided through the county DES to local coordinators and elected officials, including Basic Orientation, Duties and Responsibilities of the Local Emergency Management Coordinator (LEMC), and Damage Assessment.

### Local Emergency Planning Committee

The Local Emergency Planning Committee (LEPC) for the Emergency Planning District of Chester County is a partnership to protect the public against risks from hazardous materials. The following features of the LEPC demonstrate the capability of the LEPC to support county emergency management and preparedness initiatives.

- These LEPCs must include elected officials; fire, police, civil defense, and public health professionals; environmental, hospital, and transportation officials, as well as representatives of the facilities, community groups, and the media. The objectives of Chester County's LEPC include:
  1. Establish procedures for receiving and processing requests from the public for information under The Emergency Planning and Community Right to Know Act of 1986; Develop, implement, and exercise the emergency plan required by The Emergency Planning and



Community Right to Know Act of 1986; and carry out the duties enumerated in Act 1990-165.

2. Develop and organize a systematic, efficient, and effective method for providing public education and training opportunities to residents to make communities safer, stronger, and better prepared to respond to the threats of terrorism, crime, public health issues and disasters of all kinds.
  3. Chemicals and other hazardous materials are here to stay. Our economy and lifestyle depend on their use. Most of us are aware of the risks involved but accept them because there are prevention and response plans in place that minimize this risk. The Chester County LEPC is very active in carrying out their responsibilities.
  4. As a citizen, you can be aware of the risks that affect you. Support industry efforts to reduce or manage the risk. Manage the risk at home. Read labels; buy only what you really need to do the job. Volunteer as an emergency responder with your local fire company or ambulance service.
  5. Match the needs of emergency services first responders with the skills and abilities of volunteers.
  6. Promote Citizen Corps activities, programs, and projects.
  7. Enhance community awareness and Citizen Corps participation (Chester County LEPC, n.d.).
- *Reporting Facilities:* The minimum reporting threshold for which facilities are required to have or prepared a Material Safety Data Sheet is 10,000 pounds of hazardous chemicals. This document provides workers and emergency personnel with procedures for handling or working with hazardous materials in a safe manner. It includes information on the chemicals’ physical properties, toxicity, health effects, first aid, reactivity, storage, disposal, protective equipment, and spill-handling procedures.
  - *Planning Facilities:* The reporting threshold for Extremely Hazardous Substances (as designated under Section 302 of Title III) is 500 pounds or the threshold planning quantity, whichever is lower. Qualifying facilities are subject to additional reports and accident prevention regulations.

Technical Assistance

The County DES can support local, public, and private entities through coordination and provision of information and equipment resources. These include both existing county capabilities and predetermined private and public resources.

Municipalities participating in this planning effort were provided with a Capability Assessment Survey. Table 5-5 summarizes the responses of the municipalities based on education and outreach capabilities. Copies of the individual municipal responses are provided in Appendix D.

Table 5-5. Education and Outreach Capability

Municipality	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
Chester County	-	-	X	X	-	X	
Atglen Borough		-					



Municipality	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
Avondale Borough		-					
Birmingham Township		-					
Caln Township	-	-	-	X	-	X	
Charlestown Township		-					
Coatesville City		-					
Downingtown Borough		-					
East Bradford Township	-	-	-	-	-	-	
East Brandywine Township	X	-	X	X	-	-	
East Caln Township		-					
East Coventry Township		-					
East Fallowfield Township		-					
East Goshen Township	-	-	-	X	-	-	
East Marlborough Township	-	-	-	-	-	-	
East Nantmeal Township		-					
East Nottingham Township		-					
East Pikeland Township	-	-	-	-	-	-	
East Vincent Township		-					
East Whiteland Township	-	-	-	X	-	-	
Easttown Township		-					
Elk Township		-					
Elverson Borough		-					
Franklin Township		-					
Highland Township		-					
Honey Brook Borough	-	-	-	X	-	-	
Honey Brook Township	-	-	-	X	-	-	
Kennett Square Borough		-					
Kennett Township	-	-	-	-	-	-	
London Britain Township	-	-	-	X	-	X	
London Grove Township	-	-	X	X	-	-	X
Londonderry Township	-	-	-	-	-	-	
Lower Oxford Township	-	-	-	-	-	-	
Malvern Borough		-					
Modena Borough		-					
New Garden Township	-	-	-	X	-	X	



Municipality	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
New London Township		-					
Newlin Township		-					
North Coventry Township	-	-	-	X	-	X	
Oxford Borough	-	-	-	-	-	X	
Parkesburg Borough	-	-	-	X	X	X	
Penn Township		-					
Pennsbury Township	-	-	-	-	-	-	
Phoenixville Borough		-					
Pocopson Township		-					
Sadsbury Township		-					
Schuylkill Township		-					
South Coatesville Borough		-					
South Coventry Township		-					
Spring City Borough		-					
Thornbury Township	-	-	X	X	X	X	
Tredyffrin Township		-					
Upper Oxford Township	-	-	-	X	-	X	
Upper Uwchlan Township	-	-	-	X	X	X	
Uwchlan Township		-					
Valley Township		-					
Wallace Township		-					
Warwick Township		-					
West Bradford Township		-					
West Brandywine Township		-					
West Caln Township	-	-	-	X	-	-	
West Chester Borough	-	-	-	-	-	-	
West Fallowfield Township		-					
West Goshen Township	-	-	-	X	-	-	
West Grove Borough		-					
West Marlborough Township		-					
West Nantmeal Township		-					
West Nottingham Township	-	-	-	-	-	-	
West Pikeland Township		-					
West Sadsbury Township		-					



Municipality	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
West Vincent Township		-					
West Whiteland Township	-	-	-	X	X	X	
Westtown Township		-					
Willistown Township		-					

Notes:  
 “X” indicates that the municipality currently has this capability in place.  
 “-” indicates no capability is currently in place.  
 Blank space indicates no response was received from the municipality.

### 5.2.5 Plan Integration

According to FEMA, plan integration is a process where communities critically review their existing planning framework and align their efforts. Integration of hazard mitigation principles into other local planning mechanisms (comprehensive plans, transportation plans, floodplain ordinances, etc.) and vice versa is vital to build a safer, more resilient community. This two-way exchange of information supports community-wide risk reduction, both before and after disasters occur. Not only will the community’s planning efforts be better integrated, but by going through this process, there is a higher level of interagency coordination, which is just as important as the planning mechanisms themselves.

Within Chester County, many existing plans and programs support hazard risk management; thus, it is critical that this HMP integrate and coordinate with, and complement, those mechanisms.

The intention of the Planning Team and participating jurisdictions is to incorporate mitigation planning as an integral component of daily government operations. Planning Team members will work with local government officials to integrate the newly adopted hazard mitigation goals and actions into the general operations of government and partner organizations. Further, the sample adoption resolution (located in Section 8 of this HMP) includes a resolution item stating the intent of the local governing body to incorporate mitigation planning as an integral component of government and partner operations. By doing so, the Planning Team anticipates the following:

- 1) Hazard mitigation planning will be formally recognized as an integral part of overall emergency management efforts.
- 2) Hazard mitigation planning will be formally recognized as an integral part of land use policies and mechanisms.
- 3) The HMP, the county and municipal comprehensive plans, and the county and municipal EOPs will become mutually supportive documents that work in concert to meet the goals and needs of county residents.
- 4) Duplication of effort can be minimized.

As noted in Section 6 of this plan, Chester County has made a concerted effort to reduce its vulnerability to natural and non-natural hazards in its planning and in its daily operations since the Chester County HMP was last updated in 2015. The county and its jurisdictions have implemented various programs and projects to reduce



the impacts of hazards. These projects, programs, and regulations have reduced risk caused by natural and non-natural hazards and support the goals and objectives of this HMP. It is the intent of the county and its participating municipalities to strengthen this focus on mitigation by continuing existing policies and by further implementing the mitigation policies contained in this HMP.

Implementation actions will include incorporating the goals of the HMP into ongoing planning, zoning, building, and engineering activities. Specifically, the county will urge municipalities to take the following actions:

- Fund hazard mitigation projects or actions in operating budgets to the extent possible.
- Notify other municipalities about grant and other funding opportunities as they arise.
- Use data and maps from this HMP as supporting documentation in grant applications.
- Review mitigation actions when allocating funding for the municipal budgets.
- Include hazard mitigation when updating municipal ordinances.
- Identify hazard areas in updates of comprehensive plans to identify land use issues.
- Review the HMP prior to land use or zoning changes and permitting or development decisions.

The information on hazards, risk, vulnerability, and mitigation contained in this HMP is based on the best science and technology available at the time of the plan's preparation. Additionally, certain plans (including blueprints) were incorporated directly into this HMP update. All participating jurisdictions recognize that this information can be invaluable in making decisions under other planning programs, such as comprehensive, capital improvement, and emergency management plans. Figure 5-1 illustrates the interrelationships between the HMP, the Chester County comprehensive plan, the county EOP, and other community planning mechanisms. Existing processes and programs through which the HMP should be implemented are described below.

Plan participants will make every effort to implement the relevant sections and or data contained in the HMP utilizing administrative, budgetary, and regulatory processes as well as partnerships to the maximum extent, as described below.

### **Administrative**

Administrative processes include departmental or organizational work plans, policies, or procedural changes that can be addressed by county departments.

The Chester County DES is responsible for preparing and maintaining the county EOP, including a minimum biennial review. Whenever portions of the plan are implemented in an emergency event or training exercise, a review is performed, and changes are made where necessary. The risk assessment information presented in the 2015 HMP was used to update the Hazard Vulnerability Assessment section of the county EOP. The updated risk assessment information will affect subsequent updates to the EOP. Recommended changes to the HMP, based on changes to the EOP, will then be coordinated with the Planning Team.

The Chester County Planning Commission is responsible for maintaining and updating the county comprehensive plan, which covers all 73 municipalities.

The administrative practices described above will continue through the development of subsequent Chester County comprehensive plan updates using the information in this updated HMP. In return, the Chester County comprehensive plan, located on the Chester County Planning Commission's website, was incorporated into multiple aspects of this HMP. Information from the comprehensive plan and other documents was used to formulate the county profile, identify the history of individual hazards, and detail the population projections in Chester County.

### **Budgetary Process**

In terms of budgetary processes, the county will review capital budgets and, if funding is available, include a line item for mitigation actions. In addition, the county will maximize mitigation aspects of proposed projects and will encourage municipalities to do likewise.





## Regulatory Measures

Regulatory measures—such as the creation of executive orders, ordinances, and other directives—will be considered to support hazard mitigation in the following areas:

- Comprehensive Planning – Institutionalize hazard mitigation for new construction and land use.
- Zoning and Ordinances
- Building Codes – Enforce codes or higher standards in hazard areas.
- Capital Improvements Plan – Ensure that the person responsible for projects under this plan evaluates whether new construction is in a high-hazard area (such as a floodplain) so the construction is designed to mitigate the risk. Revise requirements for this plan to include hazard mitigation in the design of new construction.
- NFIP – Continue participation in this program and explore participation in CRS Program.
- Stormwater Management – Continue to implement stormwater management plans and ordinances. Stormwater management plans/ordinances have been developed for nine municipalities with another currently under development.
- HMP Plan Coordination – Prior to formal changes (amendments) to master plans, zoning, ordinances, capital improvement plans, or other mechanisms that control development, all above-mentioned plans must be reviewed to ensure they are consistent with the HMP.

## Funding

The county and its jurisdictions will consider multiple grant sources to fund eligible projects. These opportunities may include, but are not limited to:

- Federal
  - Federal Emergency Management Agency (FEMA) Pre-Disaster Mitigation Program (PDM)
  - FEMA Flood Mitigation Assistance Program (FMA)
  - FEMA Hazard Mitigation Grant Program (HMGP) – Stafford Act, Section 404
  - U.S. Department of Housing and Urban Development (HUD) – Community Development Block Grant (CDBG)
  - U.S. Department of Agriculture (USDA) – USDA Community Facilities
  - U.S. Economic Development Administration (EDA) Public Works Program
- Commonwealth
  - Pennsylvania Department of Community and Economic Development (DCED) PA Small Water and Sewer
  - Pennsylvania Department of Transportation (PennDOT) Pennsylvania Infrastructure Bank
  - Act 13 of Marcellus Shale Legacy Funds – Flood Mitigation Program
  - Growing Greener
- Regional
  - Appalachian Regional Commission
  - Southwestern Pennsylvania Commission
- Nonprofit organizations, foundations, and private sources

Other potential federal funding sources include:

- Stafford Act, Section 406 – Public Assistance Program Mitigation Grants
- Federal Highway Administration



- Catalog of Federal Domestic Assistance
- U.S. Fire Administration – Assistance to Firefighter Grants
- U.S. Small Business Administration Pre- and Post-Disaster Mitigation Loans
- U.S. Department of Economic Development Administration Grants
- U.S. Army Corps of Engineers
- U.S. Department of Interior, Bureau of Land Management
- Other sources as yet to be defined

### Partnerships

The following opportunities for partnerships will be encouraged to provide broader support and understanding of hazard mitigation:

#### Existing Committees and Councils

- Local Government Committees:
  - Chester County Agricultural Land Preservation Board (<https://www.chesco.org/1366/Farmland-Preservation>)
  - Chester County Conservation District (<https://www.chesco.org/205/Conservation-District>)
  - Chester County Economic Development Council (<https://ccedcpa.com/>)
  - Housing Authority of the County of Chester (<http://www.haccnet.org/>)
  - Chester County Land Bank (<https://housingalliancepa.org/research-and-resources/interactive-land-bank-map/> )
  - Chester County Local Emergency Planning Committee (<https://www.chesco.org/3846/LEPC>)
  - Transportation Management Association of Chester County (TMACC) (<https://www.tmacc.org/> )

#### Creative Partnerships for Funding and Incentives

- Public-private partnerships, including utilities and businesses
- State cooperation
- In-kind resources

#### Working with other Federal and Commonwealth Agencies

- U.S. Army Corps of Engineers (USACE)
- Department of Homeland Security (DHS)
- Federal Emergency Management Agency (FEMA)
- National Oceanic and Atmosphere Administration (NOAA)
- National Weather Service (NWS)
- United States Department of Agriculture (USDA)
- United States Department of Transportation (USDOT)
- United States Geological Service (USGS)
- Pennsylvania Department of Transportation (PennDOT)
- Pennsylvania Department of Environmental Protection (PADEP)
- PEMA
- Pennsylvania State Police (PSP)



- American Red Cross

**Watershed Associations**

- Brandywine Red Clay Alliance
- Chester Ridley Crum Watersheds Association
- Darby Creek Valley Association
- Delaware Riverkeeper Network
- Elk Creek Watershed
- Guardians of the Brandywine
- Green Valleys Association
- Master Water Stewards
- Octoraro Watershed Association
- Valley Creek Restoration Partnership
- Valley Forge Trout Unlimited
- White Clay Watershed Association



Figure 5-1. Plan Interrelationships



Note:  
 E&S Erosion and Sedimentation  
 MPC Municipal Planning Code

During the plan evaluation process, the Planning Team will identify additional policies, programs, practices, and procedures that could be modified to accommodate hazard mitigation actions and will include these findings and recommendations in the HMP Progress Report.