

## **Whitehall Township, Lehigh County Annex**

### **Hazard Mitigation Plan Points-of-Contact**

#### **Primary:**

Christopher Grim  
Emergency Manager  
3219 MacArthur Road, Whitehall, PA 18052  
610-437-5524  
cgrim@whitehalltownship.com

#### **Alternate:**

John Rackus  
Director of Public Works  
3219 MacArthur Road, Whitehall, PA 18052  
610-437-5524  
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### **Municipal Profile**

Whitehall Township is a rural-suburban township located in east-central Lehigh County, along the border with Northampton County. The township encompasses a land area of 12.8 square miles, and has a population of 26,738 (2010 Census). Whitehall Township is bordered by; Coplay Borough, Catasauqua Borough, Hanover Township, Northampton Borough, and North Catasauqua Borough (both Northampton County) to the east; the City of Allentown to the south; South Whitehall Township to the west and southwest; and North Whitehall Township to the west and northwest.

Whitehall Township is situated along the western bank of the Lehigh River. The township drains in the Lehigh River, which separates it from Northampton County and Catasauqua Borough. Three tributaries of the Lehigh River drain the township: Spring Creek in the northern-most area, Coplay Creek for the central and majority of the township, and Jordan Creek in the southern area bordering South Whitehall Township and Allentown.

The township's main north-south road is Route 145 (MacArthur Road), which has an interchange with Highway 22 in the southern-most part of the township, and crosses Route 329 in the north. Route 329 runs east-west across the northern part of the township, connecting to Northampton County in the east and North Whitehall Township in the west. In the south, Route 22 crosses east-west through Whitehall Township, connecting points in eastern PA to Allentown, and continuing west through Pittsburgh and beyond. Locally, Mechanicsville Road and Lehigh Street bisect the center of the township, running east-west to points west to South Whitehall Township and east to North Catasauqua Borough (Northampton County), respectively.

## Municipal Participation

1. Identify municipal stakeholders to be involved in the planning process such as, floodplain administrator, public works, emergency management, engineers, planners, etc., and include their specific role in the process.

Jack Meyers, Deputy Mayor  
Role: Deputy Mayor

Christopher Grim, Emergency Manager  
Role:

Carl Lagler, Engineer  
Role:

Lee Rackus, Director of Zoning / Development  
Role:

John Rackus, Director of Public Works  
Role:

2. Identify community stakeholders such as; neighborhood groups, religious groups, major employers / businesses, etc., that will be informed and / or involved in the planning process and describe how they will be involved.
3. Describe how the public **will be engaged** in the current planning process examples, newsletters, social media, etc., **and how they were engaged** since the 2013 Hazard Mitigation Plan.

The public will be notified via the township newsletter and social media.

## Compliance with the National Flood Insurance Program (NFIP)

Topic	Identify source of information, if different from the one listed.	Additional Comments
<b>1. Staff Resources</b>		
Is the Community Floodplain Administrator (FPA) or NFIP Coordinator certified?	Community FPA	
Is floodplain management an auxiliary function?	Community FPA	
Provide an explanation of NFIP administration services (e.g., permit review, GGIS, education or outreach, inspections, engineering capability)	Community FPA	
What are the barriers to running an effective NFIP program in the community, if any?	Community FPA	
<b>2. Compliance History</b>		
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, or community records	
Are there any outstanding compliance issues (i.e., current violations)?		
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?		
Is a CAV or CAC scheduled or needed?		

## Compliance with the National Flood Insurance Program (NFIP) – *continued*

Topic	Identify source of information, if different from the one listed.	Additional Comments
<b>3. Regulation</b>		
When did the community enter the NFIP?	NFIP Community Status Book	
Are the Flood Insurance Rate Maps (FIRMs) digital or paper? How are residents assisted with mapping?	Community FPA	
Do floodplain regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	
Describe the permitting process	Community FPA, State, FEMA NFIP	
<b>4. Insurance Summary</b>		
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	
Describe any areas of flood risk with limited NFIP policy coverage	Community FPA or FEMA Insurance Specialist	
<b>5. Community Rating System (CRS)</b>		
Does the community participate in CRS?	Community FPA, State, or FEMA NFIP	
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual ( <a href="http://www.fema.gov/floodinsurancemanual.gov">http://www.fema.gov/floodinsurancemanual.gov</a> )	
What categories and activities provide CRS points and how can the Class be improved?		
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, or ISO representative	

## Community Assets

Community assets are defined to include anything that is important to the character as well as the function of a community, and can be described in four categories, they are; people, economy, natural environment and built environment. Please identify the community assets and location under each category.

### 1. People

- Concentrations of vulnerable populations such as the elderly, physically or mentally disabled, non-English speaking, and the medically or chemically dependent.

Whitehall Township has two nursing homes

## Community Assets – *continued*

- Types of visiting populations where large numbers of people are concentrated such as visitors for special events and students.

Whitehall Township receives a large amount of visitors that are traveling thru the township to get to northern destinations and due to the large shopping centers / malls, we have.

### 2. Economy

Major employers, primary economic sectors such as agriculture and commercial centers where losses would have a severe impact on the community.

Whitehall Township has two major shopping malls and three major shopping centers in the community that would have a severe impact if there were losses. We have a large commercial base.

### 3. Natural Environment

Those areas / features that can provide protective functions that reduce the magnitude of hazard events such as, wetlands or riparian areas, and other environmental features important to protect.

### 4. Built Environment

- Existing structures such as, concentrations of buildings that may be more vulnerable to hazards based on location, age, construction type and / or condition of use.
- Infrastructure systems such as water and wastewater facilities, power utilities, transportation systems, communication systems, energy pipelines and storage.

A major pipeline traverses the township from west to east.

- High potential loss facilities such as, dams, locations that house hazardous materials, military and / or civilian defense installations.
- Critical facilities such as, hospitals, medical facilities, police and fires stations, emergency operations centers, shelters, schools and airports / heliports.

1 police station

5 fire stations

1 emergency operations center

Whitehall/Coplay School District Campus - K-12 on one large campus

- Cultural / historical resources such as, museums, parks, stadiums, etc.

2 historic buildings

3 trail systems

**Capability Assessment**

Capability	✓ Regulatory ✓ Tools ✓ Programs	Status			Department / Agency Responsible	Effect on Hazard Loss Reduction: -Supports -Neutral -Hinders	Change since 2013 Plan? + Positive - Negative	Has the 2013 Plan been integrated into the Regulatory Tool/Program ? If so, how?	How can these capabilities be expanded and improved to reduce risk?	Additional Comments
		In Place	Date Adopted or Updated	Under Development						
1. Planning & Regulatory	Comprehensive Plan	X			Planning, Zoning & Development					
	Capital Improvement Plan	X			Administration					
	Economic Development Plan									
	Continuity of Operations Plan			X	Emergency Management Agency					
	Stormwater Management Plan / Ordinance	X			Planning, Zoning & Development					
	Open Space Management Plan (or Parks/Rec., Greenways Plan)	X			Planning, Zoning & Development					
	Natural Resource Protection Plan			X						
	Transportation Plan									
	Historic Preservation Plan									
	Floodplain Management Plan	X			Planning, Zoning & Development					
	Farmland Preservation			X	Planning, Zoning & Development					
	Evacuation Plan	X			Emergency Management Agency					
	Disaster Recovery Plan			X	Emergency Management Agency					

**Capability Assessment – continued**

Capability	✓ Regulatory ✓ Tools ✓ Programs	Status			Department / Agency Responsible	Effect on Hazard Loss Reduction: -Supports -Neutral -Hinders	Change since 2013 Plan? + Positive - Negative	Has the 2013 Plan been integrated into the Regulatory Tool/Program ? If so, how?	How can these capabilities be expanded and improved to reduce risk?	Additional Comments
		In Place	Date Adopted or Updated	Under Development						
1. Planning & Regulatory	Hazard Mitigation Plan	X			Emergency Management Agency					
	Emergency Operations Plan	X			Emergency Management Agency					
	Zoning Regulations	X			Planning, Zoning & Development					
	Floodplain Regulations	X			Planning, Zoning & Development					
	NFIP Participation	X			Planning, Zoning & Development					
	Building Code	X			Planning, Zoning & Development					
	Fire Code	X			Planning, Zoning & Development					
	Other									

**Capability Assessment – continued**

Capability	✓ Staff ✓ Personnel ✓ Resources	Yes	No	Department / Agency	Change since 2013 Plan? + Positive - Negative	How can these capabilities be expanded and improved to reduce risk?	Additional Comments
2. Administrative & Technology	Planners (with land use / land development knowledge)	X		Planning, Zoning & Development			
	Planners or engineers (with natural and / or human-caused hazards knowledge)	X		Planning, Zoning & Development			
	Engineers or professionals trained in building and / or infrastructure construction practices (including building inspectors)	X		Planning, Zoning & Development			
	Emergency Manager	X		Emergency Management Agency			
	Floodplain administrator / manager	X		Planning, Zoning & Development			
	Land surveyors	X		Planning, Zoning & Development			
	Staff familiar with the hazards of the community	X		Planning, Zoning & Development			
	Personnel skilled in Geographical Information Systems (GIS) and / or FEMA's HAZUS program	X		Planning, Zoning & Development			
	Grant writers or fiscal staff to handle large / complex grants	X		Administration			
	Other						

**Capability Assessment – continued**

Capability		Yes	No	Department / Agency	Change since 2013 Plan? + Positive - Negative	How can these capabilities be expanded and improved to reduce risk?	Additional Comments
<b>3. Financial Resources</b>	Capital improvement programming	X		Administration			
	Community Development Block Grants (CDBG)	X		Planning, Zoning & Development			
	Special purposes taxes						
	Gas / Electricity utility fees						
	Water / Sewer fees						
	Stormwater utility fees	X		Planning, Zoning & Development			
	Development impact fees	X		Planning, Zoning & Development			
	General obligation, revenue, and / or special tax bonds	X		Administration			
	Partnering arrangements or intergovernmental agreements	X		Administration			
	Other						

Capability	✓ Program ✓ Organization	Yes	No	Department / Agency	Change since 2013 Plan? + Positive - Negative	How can these capabilities be expanded and improved to reduce risk?	Additional Comments
<b>4. Education &amp; Outreach</b>	Firewise Communities Certification		X				
	StormReady Certification		X				
	Natural disaster or safety-related school programs						
	Ongoing public education or information programs such as, responsible water use, fire safety, household preparedness, and environmental education.	X		Fire Dept, Emergency Management Agency			
	Public-private partnership initiatives addressing disaster related issues.	X		Emergency Management Agency			
	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	X		Emergency Management Agency, Recreation			
	Other						



**Capability Assessment – continued**

Capability		Degree of Capability			Change since the 2013 Hazard Mitigation Plan? If so, how?	Additional Comments
		Limited	Moderate	High		
5. Self – Assessment	Planning and Regulatory			X		
	Administrative and Technical			X		
	Financial		X			
	Education and Outreach		X			

**Known or Anticipated Future Development / Redevelopment**

Development / Property Name	Type of Development	Number of Structures	Location	Known Hazard Zone	Description / Status
No known development at this time.					

**Natural & Non-Natural Event History Specific to Whitehall Township**

Type of Event and Date(s)	FEMA Disaster # (if applicable)	Local Damage(s) or Loss(es)
Straight Line Winds – 7/2015	N/A	Unknown
Winter Storm Jonas – 1/2016	DR-4267-PA	Unknown
Pennsylvania COVID-19 Pandemic – 1/2020	DR-4506-PA	Emergency Protective measures to combat COVID-19 Pandemic.

## 2013 Municipal Action Plan Status

Existing Mitigation Action (from 2013 Hazard Mitigation Plan)		Status					Additional Comments
		No Progress / Unknown	In Progress	Continuous	Completed	Discontinued	
1	Norfolk Southern Culvert over Coplay Creek – Engineering and removal of flow restriction from the original 1910 design of the culvert. At present, SR 1010 ADT of 15,000 closes. Water Street homes are without fire services during flooding due to the weight restriction and poor condition of the bridge to the north (SR 1014) that is the only other access to Water Street. 5 businesses in the area of Eberhart Road must close during times of flooding.	X					
2	Overlook Basin Upgrades at Overlook Road – Upsize the existing outfall piping to keep flows underground to the Jordan Creek. The emergency spillway for this basin uses three township roads and Rt. 145 to convey the stormwater to the Jordan Creek during overtop conditions. The roadways are mass transit and school bus routes coupled with high pedestrian traffic; such exposure in this corridor would be eliminated.	X					
3	Whitehall Police Department Emergency Generator replacement/upgrade- Presently the PD emergency generator only provides emergency lighting during power outages. The goal is to replace the generator upgrading to full stand-alone operation of the PD with 24 hours operation of 50 employees.	X					
4	Sinkhole on Florida Avenue – sinkhole remediation to protect infrastructure, which has caused substantial damage to one residential structure and threatens neighboring homes, streets and infrastructure.				X		Action not carried through to the 2018 Action Plan.
5	Traffic/Evacuation/Emergency Route flooding	X					
6	Development of Emergency Mgt. Office and EOC			X			
7	Work with PennDOT to conduct additional studies of the impacts of removing the 5th Street bridge, which is adjacent and parallels SR 1015.			X			
8	Work with Lehigh County EMA to install backup power at the Whitehall Township Authority, 1901 Schadt Avenue. This project part of the Lehigh Countywide Generator Project, funded through 2008 LPDM.				X		Action not carried through to the 2018 Action Plan.

**2013 Municipal Action Plan Status – continued**

Existing Mitigation Action (from 2013 Hazard Mitigation Plan)		Status					Additional Comments
		No Progress / Unknown	In Progress	Continuous	Completed	Discontinued	
9	<p>Retrofit structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. Specifically identified are the following: - Residences on Creekside Road (incl. 2 Repetitive Loss)</p> <p>Phase 1: Identify appropriate candidates for retrofitting based on cost-effectiveness versus relocation. Phase 2: Where retrofitting is determined to be a viable option, work with property owners toward implementation of that action based on available funding from FEMA and local match availability.</p>	X					
10	<p>Purchase, or relocate structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. Specifically identified are the following: - Residences on Creekside Road (incl. 2 Repetitive Loss) - Sinkhole remediation to protect infrastructure near private home, which has suffered significant sinkhole damage. Twp will follow procedures to mitigate future involvement of neighboring homes, streets, and infrastructure.</p> <p>Phase 1: Identify appropriate candidates for relocation based on cost-effectiveness versus retrofitting. Phase 2: Where relocation is determined to be a viable option, work with property owners toward implementation of that action based on available funding from FEMA and local match availability.</p>	X					
11	<p>Maintain compliance with and good-standing in the NFIP including adoption and enforcement of floodplain management requirements (e.g. regulating all new and substantially improved construction in Special Hazard Flood Areas), floodplain identification and mapping, and flood insurance outreach to the community. Further, continue to meet and/or exceed the minimum NFIP standards and criteria through the following NFIP- related continued compliance actions identified below.</p>			X			

**2013 Municipal Action Plan Status – continued**

Existing Mitigation Action (from 2013 Hazard Mitigation Plan)		Status					Additional Comments
		No Progress / Unknown	In Progress	Continuous	Completed	Discontinued	
12	Conduct and facilitate community and public education and outreach for residents and businesses to include, but not be limited to, the following to promote and effect natural hazard risk reduction: - Provide and maintain links to the HMP website, and regularly post notices on the County/municipal homepage(s) referencing the HMP webpages. - Prepare and distribute informational letters to flood vulnerable property owners and neighborhood associations, explaining the availability of mitigation grant funding to mitigate their properties, and instructing them on how they can learn more and implement mitigation. - Use email notification systems and newsletters to better educate the public on flood insurance, the availability of mitigation grant funding, and personal natural hazard risk reduction measures. - Work with neighborhood associations, civic and business groups to disseminate information on flood insurance and the availability of mitigation grant funding. - Have already recommended sinkhole insurance to residents through the Township Newsletter.			X			
13	Begin the process to adopt higher regulatory standards to manage flood risk (i.e. increased freeboard, cumulative substantial damage/improvements).		X				
14	Determine if a Community Assistance Visit (CAV) or Community Assistance Contact (CAC) is needed, and schedule if needed.	X					
15	Have designated NFIP Floodplain Administrator (FPA) become a Certified Floodplain Manager through the ASFPM, and pursue relevant continuing education training such as FEMA Benefit-Cost Analysis.		X				
16	Participate in the Community Rating System (CRS) to further manage flood risk and reduce flood insurance premiums for NFIP policyholders. This shall start with the submission to FEMA-DHS of a Letter of Intent to join CRS, followed by the completion and submission of an application to the program once the community's current compliance with the NFIP is established.	X					
17	Archive elevation certificates			X			
18	Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0			X			
19	Complete the ongoing updates of the Comprehensive Emergency Management Plans			X			
20	Create/enhance/ maintain mutual aid agreements with neighboring communities for continuity of operations.			X			

**2013 Municipal Action Plan Status – continued**

Existing Mitigation Action (from 2013 Hazard Mitigation Plan)		Status					Additional Comments
		No Progress / Unknown	In Progress	Continuous	Completed	Discontinued	
21	Identify and develop agreements with entities that can provide support with FEMA/PEMA paperwork after disasters; qualified damage assessment personnel – Improve post-disaster capabilities – damage assessment; FEMA/PEMA paperwork compilation, submissions, record keeping.	X					
22	Work with regional agencies (i.e. County and PEMA) to help develop damage assessment capabilities at the local level through such things as training programs, certification of qualified individuals (e.g. code officials, floodplain managers, engineers).			X			

**Notes:**

1. Actions not carried through to the 2018 Action Plan are so noted.
2. To maintain National Flood Insurance Program (NFIP) compliance, actions related to the NFIP were carried through to the 2018 Action Plan even if identified by the municipality as completed.

## 2018 Mitigation Action Plan

Mitigation Action		Mitigation Technique Category	Hazard(s) Addressed	Priority (H / M / L)	Estimated Cost	Potential Funding	Lead Agency / Department	Implementation Schedule	Applies to New and / or Existing Structures
1	Norfolk Southern Culvert over Coplay Creek – Engineering and removal of flow restriction from the original 1910 design of the culvert. At present, SR 1010 ADT of 15,000 closes. Water Street homes are without fire services during flooding due to the weight restriction and poor condition of the bridge to the north (SR 1014) that is the only other access to Water Street. 5 businesses in the area of Eberhart Road must close during times of flooding.	Structure & Infrastructure	Flood	High	Medium	TBD	Township with support from Township Public Works	Long-term (depending on funding)	Existing
2	Overlook Basin Upgrades at Overlook Road – Upsize the existing outfall piping to keep flows underground to the Jordan Creek. The emergency spillway for this basin uses three township roads and Rt.145 to convey the stormwater to the Jordan Creek during overtop conditions. The roadways are mass transit and school bus routes coupled with high pedestrian traffic; such exposure in this corridor would be eliminated.	Structure & Infrastructure	Flood	Medium	High	TBD	Township	Long-term (depending on funding)	New
3	Whitehall Police Department Emergency Generator replacement / upgrade - Presently the PD emergency generator only provides emergency lighting during power outages. The goal is to replace the generator upgrading to full stand-alone operation of the PD with 24 hours operation of 50 employees.	Structure & Infrastructure	Windstorm/ Tornado, Winter Storm; Utility Interruption	Medium	High	TBD	Township Public Works and Police Department	Long-term (depending on funding)	Existing

**2018 Mitigation Action Plan – continued**

Mitigation Action		Mitigation Technique Category	Hazard(s) Addressed	Priority (H / M / L)	Estimated Cost	Potential Funding	Lead Agency / Department	Implementation Schedule	Applies to New and / or Existing Structures
4	Traffic/Evacuation/Emergency Route flooding	Education & Awareness	All Hazards	Medium	Low	Federal, State, Municipal funding	Township Police, Fire and Public Works	Long-term	Existing
5	Development of Emergency Mgt. Office and EOC	Structure & Infrastructure	All Hazards	Medium	Low	TBD	Township Office of Emergency Management	Long-term (depending on funding)	N/A
6	Work with PennDOT to conduct additional studies of the impacts of removing the 5th Street bridge, which is adjacent and parallels SR 1015.	Structure & Infrastructure	Traffic Accidents	Low	Low	Federal, State funding	Township Engineering with PennDOT	Long-term (depending on funding)	Existing
7	Retrofit structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. Specifically identified are the following: - Residences on Creekside Road (incl. 2 Repetitive Loss) Phase 1: Identify appropriate candidates for retrofitting based on cost-effectiveness versus relocation. Phase 2: Where retrofitting is determined to be a viable option, work with property owners toward implementation of that action based on available funding from FEMA and local match availability.	Structure & Infrastructure	Flood	Medium-High	Medium	FEMA Mitigation Grant Programs and local budget (or property owner) for cost share	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from PEMA, FEMA	Long-term (depending on funding)	Existing

**2018 Mitigation Action Plan – continued**

Mitigation Action	Mitigation Technique Category	Hazard(s) Addressed	Priority (H / M / L)	Estimated Cost	Potential Funding	Lead Agency / Department	Implementation Schedule	Applies to New and / or Existing Structures
<p><b>8</b> Purchase, or relocate structures located in hazard- prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. Specifically identified are the following:                      - Residences on Creekside Road (incl. 2 Repetitive Loss)                      - Sinkhole remediation to protect infrastructure near private home, which has suffered significant sinkhole damage. Twp will follow procedures to mitigate future involvement of neighboring homes, streets, and infrastructure.                      Phase 1: Identify appropriate candidates for relocation based on cost-effectiveness versus retrofitting.                      Phase 2: Where relocation is determined to be a viable option, work with property owners toward implementation of that action based on available funding from FEMA and local match availability.</p>	Structure & Infrastructure	Flood	Medium-High	High	FEMA Mitigation Grant Programs and local budget (or property owner) for cost share	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from PEMA, FEMA	Long-term (depending on funding)	Existing



**2018 Mitigation Action Plan – continued**

Mitigation Action	Mitigation Technique Category	Hazard(s) Addressed	Priority (H / M / L)	Estimated Cost	Potential Funding	Lead Agency / Department	Implementation Schedule	Applies to New and / or Existing Structures
<p><b>9</b> Maintain compliance with and good-standing in the NFIP including adoption and enforcement of floodplain management requirements (e.g. regulating all new and substantially improved construction in Special Hazard Flood Areas), floodplain identification and mapping, and flood insurance outreach to the community. Further, continue to meet and/or exceed the minimum NFIP standards and criteria through the following NFIP- related continued compliance actions identified below.</p>	<p>Local plans &amp; Regulations</p>	<p>Flood</p>	<p>High</p>	<p>Low - Medium</p>	<p>Municipal Budget</p>	<p>Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from PEMA, ISO FEMA</p>	<p>Ongoing</p>	<p>New &amp; Existing</p>

**2018 Mitigation Action Plan – continued**

Mitigation Action	Mitigation Technique Category	Hazard(s) Addressed	Priority (H / M / L)	Estimated Cost	Potential Funding	Lead Agency / Department	Implementation Schedule	Applies to New and / or Existing Structures
<p><b>10</b> Conduct and facilitate community and public education and outreach for residents and businesses to include, but not be limited to, the following to promote and effect natural hazard risk reduction:</p> <ul style="list-style-type: none"> <li>- Provide and maintain links to the HMP website, and regularly post notices on the County/municipal homepage(s) referencing the HMP webpages.</li> <li>- Prepare and distribute informational letters to flood vulnerable property owners and neighborhood associations, explaining the availability of mitigation grant funding to mitigate their properties, and instructing them on how they can learn more and implement mitigation.</li> <li>- Use email notification systems and newsletters to better educate the public on flood insurance, the availability of mitigation grant funding, and personal natural hazard risk reduction measures.</li> <li>- Work with neighborhood associations, civic and business groups to disseminate information on flood insurance and the availability of mitigation grant funding.</li> <li>- Have already recommended sinkhole insurance to residents through the Township Newsletter.</li> </ul>	Education & Awareness	All Hazards	High	Low-Medium	Municipal Budget	Municipality with PEMA, FEMA	Short-term	N/A

**2018 Mitigation Action Plan – continued**

Mitigation Action		Mitigation Technique Category	Hazard(s) Addressed	Priority (H / M / L)	Estimated Cost	Potential Funding	Lead Agency / Department	Implementation Schedule	Applies to New and / or Existing Structures
11	Begin and/or continue the process to adopt higher regulatory standards to manage flood risk (i.e. increased freeboard, cumulative substantial damage/improvements).	Local plans & Regulations	Flood	High	Low	Municipal Budget	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from PEMA, FEMA	Short-term	New & Existing
12	Determine if a Community Assistance Visit (CAV) or Community Assistance Contact (CAC) is needed, and schedule if needed.	Local plans & Regulations	Flood	Medium	Low	Municipal Budget	NFIP Floodplain Administrator with support from PA DEP, PEMA, FEMA	Short-term	N/A
13	Have designated NFIP Floodplain Administrator (FPA) become a Certified Floodplain Manager through the ASFPM and/or pursue relevant continuing education training such as FEMA Benefit-Cost Analysis.	Local plans & Regulations	Flood	High	Low	Municipal Budget	NFIP Floodplain Administrator	Short-term (depending on funding)	N/A
14	Participate in the Community Rating System (CRS) to further manage flood risk and reduce flood insurance premiums for NFIP policyholders. This shall start with the submission to FEMA- DHS of a Letter of Intent to join CRS, followed by the completion and submission of an application to the program once the community's current compliance with the NFIP is established.	Local plans & Regulations	Flood	Medium	Low	Municipal Budget	NFIP Floodplain Administrator with support from PA DEP, PEMA, FEMA	Short-term	N/A
15	Obtain and archive elevation certificates for NFIP compliance.	Local plans & Regulations	Flood	High	Low	Municipal Budget	NFIP Floodplain Administrator	Ongoing	N/A

**2018 Mitigation Action Plan – continued**

	Mitigation Action	Mitigation Technique Category	Hazard(s) Addressed	Priority (H / M / L)	Estimated Cost	Potential Funding	Lead Agency / Department	Implementation Schedule	Applies to New and / or Existing Structures
16	Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0	All Categories	All Hazards	High	Low – High (for 5-year update)	Municipal Budget, possibly FEMA Mitigation Grant Funding for 5-year update	Municipality (via mitigation planning point of contacts) with support from Planning Partners (through their Points of Contact), PEMA	Ongoing	New & Existing

**Notes:**

**Estimated Costs:**

- Where actual project costs have been reasonable estimated: Low = < \$10,000; Medium = \$10,000 to \$100,000; High = > \$100,000;
- Where actual project costs cannot reasonably be established at this time:
  - Low** = Possible to fund under existing budget. Project is part of, or can be part of an existing on-going program.
  - Medium** = Could budget for under existing work plan, but would require a reappropriation of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.
  - High** = Would require an increase in revenue via an alternative source (i.e., bonds, grants, fee increases) to implement. Existing funding levels are not adequate to cover the costs of the proposed project.

**Potential Funding (FEMA HMA):**

- **BRIC** = Building Resilient Infrastructure and Communities
- **FMA** = Flood Mitigation Assistance Grant Program
- **HMGP** = Hazard Mitigation Grant Program
- **HSGP** = Homeland Security Grant Program
- **EMPG** = Emergency Management Performance Grant

**Implementation Schedule:**

- **Short Term** = 1 to 5 years
- **Long Term** = 5 years or greater
- **DOF** = Depending on Funding

**Applies to New and/or Existing Structures:**

- **N/A** = Not Applicable