

## Hellertown Borough, Northampton County Annex

### Hazard Mitigation Plan Points-of-Contact

#### Primary:

Cathy Hartranft  
Borough Manager  
685 Main Street, Hellertown, PA 18055  
610-838-7041  
c.hartranft@hellertownborough.org

#### Alternate:

Bryan Smith  
Engineer Representative  
85 S. Route 100 & Kessler Lane, Allentown, PA 18104  
610-398-0904  
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### Municipal Profile

Hellertown Borough is located in the southwestern part of Northampton County. It encompasses an area of approximately 1.3 square miles, and has a population of 5,898 (2010 Census). The Borough is nearly surrounded by Lower Saucon Township, and is bordered to the north by Bethlehem City.

Hellertown is bordered to the west by the Saucon Creek.

Interstate 78 passes east-west through the northern part of the borough. Other major east-west roads include Friedensville Road / Water Street in the center of the Borough, and Skibo Road / East Walnut Street in the southern part of the borough. PA Route 412 (Main Street) passes north-south through the western part of the borough, and Easton Road extends from the center of the borough northeast across the borough's northeastern border. Main Street is the main vehicular route for residents as well as neighboring municipalities from the south to I-78.

### 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.

Cathy Hartranft, Borough Manager  
Role: Primary Contact

Kris Russo, Code / Zoning Officer  
Role: Floodplain Manager

Barry Yonney, Public Works Director  
Role: Public Works

Christopher Scherer, Emergency Management Coordinator  
Role: Emergency Management Services

Barry Isett & Associates, Borough Engineer  
Role: Engineer

Chief Robert Shupp, Police Chief  
Role: Police

**Municipal Participation – continued**

- 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.

Saucon Valley Partnership  
 Hellertown – Lower Saucon Chamber of Commerce  
 Lehigh Valley Health Network

- 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.

Newsletter / website updates  
 Social media – borough / police Facebook pages  
 Community events  
 Public meetings

**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	No
Is floodplain management an auxiliary function?	Community FPA	Yes
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Review permit application for compliance with NFIP. Follow-up inspections.
What are the barriers to running an effective NFIP program in the community, if any?	Community FPA	None known
<b>2. Compliance History</b>		
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, or community records	Yes
Are there any outstanding compliance issues (i.e., current violations)?		No
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?		Unknown
Is a CAV or CAC scheduled or needed?		No

**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	2/8/1973
Are the Flood Insurance Rate Maps (FIRMs) digital or paper? How are residents assisted with mapping?	Community FPA	Paper. The Borough has GIS mapping and PDF copies of the FEMA maps overlaid with tax parcel data, so when residents ask, they can be provided either an image or print of their property.
Do floodplain regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	They just meet the minimum requirements.
Describe the permitting process	Community FPA, State, FEMA NFIP	Building and land development plans submitted to the borough and reviewed prior to issuance of a permit.
<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	26 policies; \$46,814 premium; \$5,821,700 coverage
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	16 total; 12 paid; \$252,654; 4 substantial
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	Silver Creek corridor
<b>5. Community Rating System (CRS)</b>		
Does the community participate in CRS?	Community FPA, State, or FEMA NFIP	No
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.

Front Street Apartments  
Saucon Valley Manor  
Saucon Manor

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

Visitors for special events at Dimmick Park; 200 – 2,000  
Visitors for special events at Water Street Park; 50 – 300  
Visitors to Dimmick Park Pool; 50 – 1,000  
Meetings / events at Borough Hall; 20 – 150  
Meetings / events at Dewey Fire Hall; 20 – 150

### 2. Economy

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

Town Center, Main Street (SR 412)

### 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.

Hellertown Marsh  
Thomas Iron Site Open Space  
Tuminello Park

## **Community Assets – *continued***

### **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.

Structures abutting Silver Creek and Polk Valley Run

- Infrastructure systems such as water and wastewater facilities, power utilities, transportation systems, communication systems, energy pipelines and storage.

Public water and sewer

Stormwater system

SR 412 Main Street (north / south) connector

- High potential loss facilities such as, dams, locations that house hazardous materials, military and / or civilian defense installations.

None known

- Critical facilities such as, hospitals, medical facilities, police and fires stations, emergency operations centers, shelters, schools and airports / heliports.

Dewey Fire Hall

Borough Hall

Saucon Valley Manor

Lehigh Valley Health Network Center

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

Dimmick Park

Water Street Park

Borough Hall

Grist Mill

Hellertown Pool

Lost Cavern

### 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	2021		Joint Borough and Township			Comp. plan predated Hazard Mitigation plan of 2013.	Incorporate Hazard Mitigation in Comprehensive Plan Update (2019-2020)	
	Capital Improvement Plan									
	Economic Development Plan									
	Continuity of Operations Plan									
	Stormwater Management Plan / Ordinance	X	3/21/2005		Planning			Ordinance predated Hazard Mitigation Plan of 2013.	Incorporate Hazard Mitigation in any updates.	
	Open Space Management Plan (or Parks/Rec., Greenways Plan)	X	2006		Planning			Plan predated Hazard Mitigation Plan of 2013.	Incorporated Hazard Mitigation in any updates.	
	Natural Resource Protection Plan									
	Transportation Plan	X	2009		Planning			Transportation plan predated Hazard Mitigation Plan of 2013.	Incorporate Hazard Mitigation in any updates.	
	Historic Preservation Plan									
	Floodplain Management Plan	X	2022		Borough Engineer					
	Farmland Preservation									
	Evacuation Plan									
Disaster Recovery Plan										

**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	11/2018		Zoning / Emergency Management Services			N/A		
	Emergency Operations Plan	X	10/2019		Emergency Management Services					
	Zoning Regulations	X	9/17/2012		Zoning			Plan predated Hazard Mitigation Plan of 2013.	Incorporate Hazard Mitigation in any updates.	
	Floodplain Regulations	X	3/3/2014		Zoning			Hazard Mitigation incorporated in last update of 2014.	Incorporate Hazard Mitigation in any updates.	
	NFIP Participation	X								
	Building Code	X	6/21/2004		Zoning			Plan predated Hazard Mitigation Plan of 2013.	Incorporate Hazard Mitigation in any updates.	Uniform Construction Code
	Fire Code	X	6/16/2014		Zoning			International Fire Code Adopted	Incorporate Hazard Mitigation in any updates.	
	Other									

**Capability Assessment – continued**

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



**Capability Assessment – continued**

Capability			Department / Agency	Change since 2013 Plan? + Positive - Negative	How can these capabilities be expanded and improved to reduce risk?	Additional Comments
	Yes	No				
<b>3. Financial Resources</b>	Capital improvement programming	X		Council and Manager	No	Develop Specific Projects Which Mitigate Current Issues
	Community Development Block Grants (CDBG)	X		Manager	No	Additional funding made available
	Special purposes taxes	X		Council		
	Gas / Electricity utility fees		X			
	Water / Sewer fees	X		Borough Authority	No	Coordinate with borough on capital projects
	Stormwater utility fees		X			
	Development impact fees		X			
	General obligation, revenue, and / or special tax bonds	X		Council		
	Partnering arrangements or intergovernmental agreements	X		Council and Planning	No	Saucon Valley Partnership – Lower Saucon, Hellertown and Saucon Valley School District
	Other					

**Capability Assessment – continued**

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
4. Education & Outreach	Firewise Communities Certification		X				
	StormReady Certification		X				
	Natural disaster or safety-related school programs		X				
	Ongoing public education or information programs such as, responsible water use, fire safety, household preparedness, and environmental education.		X				
	Public-private partnership initiatives addressing disaster related issues.		X				
	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	X		Saucon Creek Watershed	No		
	Other						

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		No	
	Administrative and Technical		X		No	
	Financial	X			No	
	Education and Outreach		X		No	

**Known or Anticipated Future Development / Redevelopment**

<b>Development / Property Name</b>	<b>Type of Development</b>	<b>Number of Structures</b>	<b>Location</b>	<b>Known Hazard Zone</b>	<b>Description / Status</b>
Saucon Valley Country Club Housing Project	Residential subdivision	50+	East side of Borough / Lower Saucon Township	Silver Creek Watershed	Planning Stage. Stormwater runoff will directly impact Borough stormwater systems.
Champion Spark Plug Building	Commercial	1	North end of Borough	None known	Planning Stage. Re-use of former superfund site for commercial use.
Saucon Valley Manor Expansion	Elderly Care	120 units	Center of Borough, Front and Thomas Streets	None known	Phased development. New residential units to expand existing elderly housing facility.

**Natural & Non-Natural Event History Specific to Hellertown Borough**

<b>Type of Event and Date(s)</b>	<b>FEMA Disaster # (if applicable)</b>	<b>Local Damage(s) or Loss(es)</b>
Hurricane Andrew – 1992	(Not Declared)	Unknown
Hurricane Ivan – 9/17/2004	DR-1557-PA	Depot Street Culvert collapsed, bridge abutments and streambank erosion, temporary closure of several streets.
Hurricane Irene – 8/26/2011 – 8/30/2011	DR-4025-PA EM-3339	Erosion of Silver Creek streambanks, damage to private properties along Silver Creek and Polk Valley Run, floodwaters close Water Street / Front Street.
Tropical Storm Lee – 9/3/2011 – 10/15/2011	DR-4030-PA EM-3340	Heavy accumulation of debris and sediment in the Silver Creek, floodwaters close Water Street / Front Street.
October Snowstorm - 2011	(Not Declared)	Temporary road closures due to fallen trees, debris, and wires. Loss of power to Borough up to 7 days following event.
Pennsylvania COVID-19 Pandemic – 1/2020	DR-4506-PA	Emergency Protective measures to combat COVID-19 Pandemic.
Remnants of Hurricane Ida	DR-4618-PA	Assistance to eligible individuals and families affected by this disaster.

## 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	Silver Creek Corridor Stabilization and Clearing (Borough Line (east) to confluence of Saucon Creek (west)) – Excavation and clearing of deposited sediment and debris and stabilization of the streambank and bridge abutment.			X			
2	Replacement of Harris Street Bridge - Remove and replace the Harris Street Bridge and associated abutments. The existing structure currently creates a temporary dam of the floodwaters, which creates significant damage to neighboring properties and municipal roads. In addition, the structure has open grate decking which allows floodwaters to penetrate the structure and block the road. A new structure will open the stream channel, permit better flow along the stream corridor, and reduce bypass flows over private land and public streets.				X		Action not carried through to the 2018 Action Plan.
3	Thomas Iron Site Floodplain Restoration - In the early 1900's, the Thomas Iron site was a steel processing facility which supported neighboring Bethlehem Steel. The site is largely a low-lying area in the oxbow of the Saucon Creek. This area was filled with slag, an aggregate by-product of the steel extraction process. The fill material has reduced the historic floodplain of the Saucon Creek, just below the confluence of Silver Creek. The removal of this material and restoration of the floodplain will significantly increase the holding capacity of the Saucon Creek and reduce upstream flooding of the Silver Creek and Borough. Work to include removal of slag material, restoration of the floodplain vegetation and stream bank stabilization.	X					
4	Polk Valley Run east and west of Main Street - This shallow stream corridor frequently overruns its banks, causing significant damage to neighboring properties. In addition, the Borough Authority's sewer pumping station is often flooded. Long-term channelization of the stream corridor and re- construction of the culvert under Main Street is needed to expand the streams capacity and contain flows.	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	
5	Easton Road and Cherry Lane Stormwater - Recent development of the downstream area, outside the Borough, has restricted stormwater flow from this upper drainage area. The result has been flooding of the drainage channel and neighboring streets. Easton Road is the only other north/east bound road exiting the Borough, except Main Street. As a result, it is vital this roadway remain clear and passable at all times. Expanded stormwater improvements are required to capture and convey stormwater off the street and into the system downstream. In addition, temporary above and below grade storage is needed to prevent flooding surges.	X					
6	Stormwater Improvements - The Borough Hall, public works facility and police station, neighboring private properties, state, and Borough streets of Water, Main and Front Street flood to a condition of being impassable. The floods and street closures create significant life and safety concerns for the community during heavy rainfall events. Closure of State Route 412 (Main Street) cuts off a main north-south route for local and regional residents looking to reach Interstate I-78 and the City of Bethlehem. Water Street, is one of only two east-west routes, which provide possible evacuation routes for Borough residents to higher elevations. The Borough's main stormwater system is a combination of inlets, pipes which outlet, and utilizes the Silver Creek as the main trunk line to the Saucon Creek. Almost 60% of the Borough, which includes the most densely developed area, surrounds the Silver Creek and uses this corridor to carry away stormwater flows. The Borough proposes to make a number of improvements to the stormwater system, which will alleviate the volume of stormwater reaching the Silver Creek. Several by-pass stormwater systems would be constructed to capture and convey upstream neighborhoods, and convey them directly to the Saucon Creek.		X				Stormwater improvements completed at Borough Hall (Main and Easton Road). Additional improvements required to the surrounding stormwater systems.
7	Stormwater System Maintenance - Annual maintenance of the system is required to remove sediment, debris and trash, which collected in the stormwater inlets, pipes and stream corridors. This material, if not removed, reduces capacity and increased potential local and surrounding area flooding. Following larger events, cleanup of the deposited debris is required.			X			
8	Work with Northampton County EMS to install backup power at the Hellertown Borough Authority, Well #1. This project is part of the Northampton 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	
<b>9</b>	<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:</p> <ul style="list-style-type: none"> <li>- Rentzheimer Street Bridge</li> <li>- Northampton Street Bridge</li> <li>- Main Street Culvert (Silver Creek)</li> <li>- Harris Street Bridge</li> <li>- Front Street Bridge</li> <li>- Main Street Bridge (Polk Valley Stream)</li> <li>- Water Street Bridge</li> <li>- Rail Trail Culvert (Silver Creek)</li> </ul> <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				A: Bridge repairs underway and to be completed in 2018.
<b>10</b>	<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:</p> <ul style="list-style-type: none"> <li>- None at this time.</li> </ul> <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					B:

**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	
<b>11</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 as Initiatives (below).			X			C:
<b>12</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: 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.	X					D:
<b>13</b>	Begin the process to adopt higher regulatory standards to manage flood risk (i.e. increased freeboard, cumulative substantial damage/improvements) and sinkhole risk (e.g. carbonate bedrock standards).			X			E:
<b>14</b>	Determine if a Community Assistance Visit (CAV) or Community Assistance Contact (CAC) is needed, and schedule if needed.	X					F:
<b>15</b>	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					G:

**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	
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					H:
17	Archive elevation certificates	X					I:
18	Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0			X			J:
19	Complete the ongoing updates of the Comprehensive Emergency Management Plans			X			K:
20	Create/enhance/maintain mutual aid agreements with neighboring communities for continuity of operations.			X			L:
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			M:
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			N:

**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	Silver Creek Corridor Stabilization and Clearing (Borough Line (east) to confluence of Saucon Creek (west)) – Excavation and clearing of deposited sediment and debris and stabilization of the streambank and bridge abutment.	Structure & Infrastructure	Flood	High	High	FEMA Mitigation Grants with local budget for cost share	Hellertown Borough	Short-term	Existing
2	Thomas Iron Site Floodplain Restoration - In the early 1900's, the Thomas Iron site was a steel processing facility which supported neighboring Bethlehem Steel. The site is largely a low-lying area in the oxbow of the Saucon Creek. This area was filled with slag, an aggregate by-product of the steel extraction process. The fill material has reduced the historic floodplain of the Saucon Creek, just below the confluence of Silver Creek. The removal of this material and restoration of the floodplain will significantly increase the holding capacity of the Saucon Creek and reduce upstream flooding of the Silver Creek and Borough. Work to include removal of slag material, restoration of the floodplain vegetation and stream bank stabilization.	Structure & Infrastructure	Flood	Medium	High	FEMA Mitigation Grants with local budget	Hellertown Borough	Short-term	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
<b>3</b>	Polk Valley Run east and west of Main Street - This shallow stream corridor frequently overruns its banks, causing significant damage to neighboring properties. In addition, the Borough Authority's sewer pumping station is often flooded. Long-term channelization of the stream corridor and re-construction of the culvert under Main Street is needed to expand the streams capacity and contain flows.	Structure & Infrastructure	Flood	Low	High	FEMA Mitigation Grants with local budget for cost share	Hellertown Borough (with support from private, Borough Authority, PennDOT)	Long-term	Existing
<b>4</b>	Easton Road and Cherry Lane Stormwater - Recent development of the downstream area, outside the Borough, has restricted stormwater flow from this upper drainage area. The result has been flooding of the drainage channel and neighboring streets. Easton Road is the only other north/east bound road exiting the Borough, except Main Street. As a result, it is vital this roadway remain clear and passable at all times. Expanded stormwater improvements are required to capture and convey stormwater off the street and into the system downstream. In addition, temporary above and below grade storage is needed to prevent flooding surges.	Structure & Infrastructure	Flood	Low	High	FEMA Mitigation Grants with local budget for cost share	Hellertown Borough (with support from PennDOT, City of Bethlehem, private)	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>5</b> Stormwater Improvements - The Borough Hall, public works facility &amp; police station, neighboring private properties, state, &amp; Borough streets of Water, Main &amp; Front Street flood to a condition of being impassable. The floods &amp; street closures create significant life &amp; safety concerns for the community during heavy rainfall events. Closure of State Route 412 (Main Street) cuts off a main north-south route for local &amp; regional residents looking to reach Interstate I78 &amp; the City of Bethlehem. Water Street, is one of only two east-west routes, which provide possible evacuation routes for Borough residents to higher elevations. The Borough's main stormwater system is a combination of inlets &amp; pipes which outlet &amp; utilizes the Silver Creek as the main trunk line to the Saucon Creek. Almost 60% of the Borough, which includes the most densely developed area, surrounds the Silver Creek &amp; uses this corridor to carry away stormwater flows. The Borough proposes to make a number of improvements to the stormwater system, which will alleviate the volume of stormwater reaching the Silver Creek. Several by-pass stormwater systems would be constructed to capture &amp; convey upstream neighborhoods, &amp; convey them directly to the Saucon Creek.</p>	Structure & Infrastructure	Flood	High	High	FEMA Mitigation Grants with local budget for cost share	Hellertown Borough (with support from PennDOT)	Long-term (depending on funding)	Existing

**2018 Mitigation Action Plan – continued**

	<b>Mitigation Action</b>	<b>Mitigation Technique Category</b>	<b>Hazard(s) Addressed</b>	<b>Priority (H / M / L)</b>	<b>Estimated Cost</b>	<b>Potential Funding</b>	<b>Lead Agency / Department</b>	<b>Implementation Schedule</b>	<b>Applies to New and / or Existing Structures</b>
<b>6</b>	Stormwater System Maintenance - Annual maintenance of the system is required to remove sediment, debris and trash, which collected in the stormwater inlets, pipes and stream corridors. This material, if not removed, reduces capacity and increased potential local and surrounding area flooding. Following larger events, cleanup of the deposited debris is required.	Structure & Infrastructure	Flood	Medium	Medium	Annual Borough Budget	Hellertown Borough (with support from PennDOT, City of Bethlehem, private)	Ongoing	Existing
<b>7</b>	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: - Rentzheimer Street Bridge - Northampton Street Bridge - Main Street Culvert (Silver Creek) - Harris Street Bridge - Front Street Bridge - Main Street Bridge (Polk Valley Stream) - Water Street Bridge - Rail Trail Culvert (Silver Creek) 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	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**

	<b>Mitigation Action</b>	<b>Mitigation Technique Category</b>	<b>Hazard(s) Addressed</b>	<b>Priority (H / M / L)</b>	<b>Estimated Cost</b>	<b>Potential Funding</b>	<b>Lead Agency / Department</b>	<b>Implementation Schedule</b>	<b>Applies to New and / or Existing Structures</b>
<b>8</b>	<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:                      - None at this time.                      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
<b>9</b>	<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 as Initiatives (below).</p>	Local plans & Regulations	Flood	High	Low - Medium	Municipal Budget	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from PEMA, ISO FEMA	Ongoing	New & Existing

**2018 Mitigation Action Plan – continued**

	<b>Mitigation Action</b>	<b>Mitigation Technique Category</b>	<b>Hazard(s) Addressed</b>	<b>Priority (H / M / L)</b>	<b>Estimated Cost</b>	<b>Potential Funding</b>	<b>Lead Agency / Department</b>	<b>Implementation Schedule</b>	<b>Applies to New and / or Existing Structures</b>
<b>10</b>	<p>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.</p>	Education & Awareness	All Hazards	High	Low-Medium	Municipal Budget	Municipality with support from Planning Partners, PEMA, FEMA	Short-term	N/A
<b>11</b>	<p>Begin and/or continue the process to adopt higher regulatory standards to manage flood risk (i.e. increased freeboard, cumulative substantial damage/improvements) and sinkhole risk (e.g. carbonate bedrock standards).</p>	Local plans & Regulations	Flood; Subsidence/ Sinkholes	High	Low	Municipal Budget	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from PEMA, FEMA	Short-term	New & 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
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 PADEP, 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 PADEP, 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	Municipality (via mitigation planning point of contacts) with support from Planning Partners (through their Points of Contact), PEMA	Ongoing	New & Existing
17	Complete the ongoing updates of the Comprehensive Emergency Management Plans	Local plans & Regulations	All Hazards	High	Low	Municipal Budget	Municipality with support from PEMA	Ongoing	New & Existing
18	Create/enhance/maintain mutual aid agreements with neighboring communities for continuity of operations.	All categories	All Hazards	High	Low	Municipal Budget	Municipality with support from surrounding municipalities and County	Ongoing	New & Existing
19	Develop and maintain capabilities to process FEMA/PEMA paperwork after disasters; qualified damage assessment personnel – Improve post-disaster capabilities – damage assessment; FEMA/PEMA paperwork compilation, submissions, record keeping.	Education & Awareness	All Hazards	Medium	Medium	Municipal Budget	Municipality with support from County, PEMA, FEMA	Short-term	N/A
20	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).	Education & Awareness	All Hazards	Medium	Medium	Local budget, FEMA HMA grant programs	Municipality with support from County, PEMA	Short-, long-term (depending on funding)	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
21	Amend stormwater management ordinances to regulate development of upland areas in order to reduce stormwater runoff - coordinate with Lower Saucon Township.	Local plans & Regulations	Flood	High	\$10,000	Unknown	Planning/Zoning	2 to 3 years	N/A
22	Develop standards and protocols for storage, management, transport and inventory of hazardous materials within the Borough.	Education & Awareness	Environmental Hazards/ Explosion	High	\$30,000	Unknown	EMS/Planning/ Zoning	5 years	N/A
23	Coordinate with the County Emergency Management Agency and PA Department of Health, which is responsible for setting up points of distribution and providers for immunizations.	Local plans & Regulations	Pandemic and Infectious Disease	Medium	Low	Municipal Budget	Municipality, working with County EMA and PA Department of Health	Ongoing	N/A
24	Devise an employee vaccination and immunization plan to prevent an outbreak within the municipal employee ranks.	Local plans & Regulations	Pandemic and Infectious Disease	Medium	Low	Municipal Budget	Municipality	Short-term	N/A
25	Devise a municipal continuity of operations plan to keep essential services running in the event that a significant portion of the workforce is affected.	Local plans & Regulations	Pandemic and Infectious Disease	Medium	Low	Municipal Budget	Municipality	Short-term	N/A
26	Devise a public education and outreach plan regarding disease prevention.	Education & awareness	Pandemic and Infectious Disease	Medium	Low	Municipal Budget	Municipality	Ongoing	N/A
27	Provide education and outreach to residents regarding how to prevent the spread of invasive species, including quarantine procedures.	Education & awareness	Invasive Species	High	Low	Municipal Budget	Municipality	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
28	Develop a neighborhood cleanup plan designed to remove potential breeding habitat, such as discarded tires, trash and other items in which standing water can form.	Education & Awareness	Invasive Species	High	Low	Municipal Budget	Municipality	Short-term	N/A
29	Provide training and education for first responders to ensure effective emergency care.	Local plans & Regulations	Drug Overdose Crisis	High	Low	Municipal Budget	Municipality	Ongoing	N/A
30	Provide education and outreach, especially in K-12, regarding drug abuse prevention.	Education & Awareness	Drug Overdose Crisis	High	Low	Municipal Budget	Municipality/ School District	Ongoing	N/A

**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 reapportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.
  - High** = Would require an increase in revenue via an alternative source (i.e., bonds, grants, fee increases) to implement. Existing funding levels are not adequate to cover the costs of the proposed project.

**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