### **City of Easton, Northampton County Annex**

# Hazard Mitigation Plan Points-of-Contact Primary:

N/A

### **Alternate:**

Carl Manges
Planning Administrator
123 S. 3<sup>rd</sup> Street, Easton, PA 18042
610-250-6609
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### **Municipal Profile**

With an estimated population of 28,127 (2020 Census), the City of Easton is the smallest of three adjacent cities creating the urban core of the Lehigh Valley, encompassing an area of approximately 4.7 square miles. The City is bordered by Forks Township to the north; Palmer Township around Hackett Park and to the northeast; Wilson Borough and West Easton Borough to the west; Williams Township and Glendon Borough to the south; and the State of New Jersey to the east.

Easton is situated at the confluence of the Lehigh River and Delaware River. The Delaware River forms the city's eastern border with the State of New Jersey. The Lehigh River flows into the city's borders from the southwest and turns east through the city itself. The Bushkill Creek also flows through the city, meandering from the northwest corner eastward to the Delaware River.

Five major roadways serve the City. Interstate 78 passes just south of the city and is a major expressway in the area. US Route 22 passes east-west through the northern part of the city and connects Pennsylvania with New Jersey. PA Route 33 passes north south to the west of the city, though it does cross the city's official borders when it crosses the Lehigh River just north of its interchange with Interstate 78. PA Route 248 (Northampton Street), a major roadway in the Lehigh Valley, enters the city from just north of the midpoint of the city's western border, and terminates after crossing into New Jersey. PA Route 611 (Delaware Drive) travels north south along the Delaware River, changing names from South Delaware Drive south of the Lehigh River, crossing the Lehigh River as Third Street, continuing north as Larry Holmes Drive, Riverside Drive, and Garden Drive, and becoming North Delaware Drive after crossing the Bushkill Creek.

Lehigh Valley International Airport is located 15 miles west of Easton in Hanover Township, serving as the City's primary airport. Easton is important to Norfolk Southern's rail system, as it is home to three rail bridges between Pennsylvania and New Jersey.

### **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.

Stephen Nowroski, Director of Planning & Codes – <i>resigned</i> Role: Support	Carl Manges, Planning & Floodplain Administrator Role: Data gathering
Mark Hammerstone, City Engineer Role: Implementation	David Hopkins, Director of Public Works Role: Implementation

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.

Easton Environmental Advisory Council	Lafayette College
Easton Housing Authority	City of Easton Public Works
City of Easton Police Department	City of Easton Fire Department
Easton Business Association	The Boys & Girls Club of Easton
Easton Main Street Initiative	ProJect of Easton
Third Street Alliance	Nurture Nature Center
College Hill Neighborhood Association	

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 2018 Hazard Mitigation Plan.

Current: Social media, Communication with stakeholders, City website, Announcements with utility bills, Outreach through the city emergency alerts service NIXLE, and public meetings

Past: Same

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

Topic	Identify source of information if different from the one listed.	Additional Comments
1. Staff Resources		
Is the Community Floodplain Administrator (FPA) or NFIP Coordinator certified?	Community FPA	No
Is floodplain management an auxiliary function?	Community FPA	No
Provide an explanation of NFIP administration services (e.g., permit review, GGIS, education or outreach, inspections, engineering capability)	Community FPA	Zoning application review, GIS
What are the barriers to running an effective NFIP program in the community, if any?	Community FPA	None
2. Compliance History		
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)?		N/A
Is a CAV or CAC scheduled or needed?		No
3. Regulation		
When did the community enter the NFIP?	NFIP Community Status Book	10/17/1978
Are the Flood Insurance Rate Maps (FIRMs) digital or paper? How are residents assisted with mapping?	Community FPA	Digital 2014
Do floodplain regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	Yes, updated floodplain ordinance based on FEMA regulations.
Describe the permitting process	Community FPA, State, FEMA NFIP	Floodplain application has to be submitted. Includes an evacuation procedure and how a flood event or warning is monitored. Any new development is inspected to make sure of floodplain compliance.

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

4. Insurance Summary		
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	As of 9/22/2023 – 39 policies & \$127,701 in premiums
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	As of 9/22/2023 – 268 claims & \$11,340,250.86 paid to claims
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	208
Describe any areas of flood risk with limited NFIP policy coverage	Community FPA or FEMA Insurance Specialist	None
5. Community Rating System (CRS)		
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 (http://www.fema.gov/floodinsurancemanual.gov)	N/A
What categories and activities provide CRS points and how can the Class be improved?		N/A
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, or ISO representative	N/A

### **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.

Harlan House	Walters House
Bushkill House	Safe Harbor
Third Street Alliance	Transitional Housing
Northampton County Prison Neston Heights Citizen Living	
Public Housing Units on Rock, Milton, Union, St. Joseph and Elm Streets	

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

Crayola	State Theatre
Hotels	Lafayette College
Government Buildings	Annual Festivals

### 2. Economy

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

Lafayette College	County Government
Crayola	Housing Authority
City of Easton	Express Times
EPS Financial	

### **Community Assets** – continued

#### 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.

Lehigh / Delaware Dam	Chain Dam
Bushkill Creek Dam	Riparian buffer along Delaware & Lehigh Rivers

#### 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.

Easton Downtown	Lehigh Drive
Bushkill Drive	The Flats including Lynn, Winter and Buttonwood Streets
State Route 611	N & S. Delaware Drive (SR 611)
N. 3 <sup>rd</sup> Street, north of Route 22	

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

Sewage Treatment Plant	Water Treatment Plant
Intermodal Center	Met-Ed
Lafayette Substation	Lehigh Drive Pumping Station

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

Lehigh / Delaware Dam	Chain Dam
Bushkill Creek Dam	

### **Community Assets** – continued

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

City of Easton Police Department	South Side, College Hill & Central Fire Stations
Safe Harbor	Third Street Alliance
Lafayette College	Cheston, Paxinosa & March Elementary Schools
Easton Arts Academy Charter School	

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

State Theatre	Riverside, Scott & Hugh Moore Parks						
Easton Public Library	Cottingham Stadium						
Bachmann Publik House	Delaware Canal State Park						

Northampton County Historical & Genealogical Society (Sigal Museum)

# **Capability Assessment**

			Status			Effect on Hazard Loss	Change	Has the 2018	How can	
Capability	✓ Regulatory ✓ Tools ✓ Programs	In Place	Date Adopted Or Clopment		Department / Agency Responsible	Reduction:  - <u>S</u> upports  - <u>N</u> eutral  - <u>H</u> inders	since 2018 Plan? + Positive - Negative	Plan been integrated into the Regulatory Tool/Program? If so, how?	these capabilities be expanded and improved to reduce risk?	Additional Comments
	Comprehensive Plan	X	2017		Planning & Codes	Supports	Positive	Waterfront corridors provide information on appropriate design in flood zones		
	Capital Improvement Plan	X			Finance					
	Economic Development Plan	X			Economic Development					
0.5	Continuity of Operations Plan	Х			Administration					
Regulatory	Stormwater Management Plan / Ordinance	X			Planning & Codes					
ංජ	Open Space Management Plan (or Parks/Rec., Greenways Plan)	Х			Planning & Codes					
Planning	Natural Resource Protection Plan	X			Planning & Codes					
-	Transportation Plan	X			Planning & Codes					
-	Historic Preservation Plan	Х			Planning & Codes					
	Floodplain Management Plan	X			Planning & Codes					
	Farmland Preservation									
	Evacuation Plan	X			Police					
	Disaster Recovery Plan	X			Emergency Management					
	Hazard Mitigation Plan	Χ	2018		Planning & Codes					
	Emergency Operations Plan	X	6/2020		Emergency Management					

# **Capability Assessment** – continued

		Status				Effect on Hazard Loss	Change	Has the 2018	How can		
Capability	✓ Regulatory ✓ Tools ✓ Programs	In Place	Date Adopted or Updated	Under Development	Department / Agency Responsible	Reduction:  - <u>Supports</u> - <u>Neutral</u> - <u>H</u> inders	since 2018 Plan? + Positive - Negative	Plan been integrated into the Regulatory Tool/Program? If so, how?	these capabilities be expanded and improved to reduce risk?	Additional Comments	
	Zoning Regulations	X			Planning & Codes						
ng & ory	Floodplain Regulations	X	2014		Planning & Codes						
. Planning & Regulatory	NFIP Participation	X			Planning & Codes						
Plan	Building Code	X			Codes						
4. P. 8	Fire Code	X			Codes						
•	Other										

Capability	✓ Staff ✓ Personnel ✓ Resources	Yes	No	Department / Agency	Change since 2018 Plan? + Positive - Negative	How can these capabilities be expanded and improved to reduce risk?	Additional Comments
	Planners (with land use / land development knowledge)	X		Planning			
logy	Planners or engineers (with natural and / or human caused hazards knowledge)	Х		Planning / Engineering			
Technology	Engineers or professionals trained in building and / or infrastructure construction practices (including building inspectors)	х		Codes and Fire			
≪	Emergency Manager	Х		Fire & Planning			
<u>×</u>	Floodplain administrator / manager	Х		Planning			
trat	Land surveyors						
nisi	Staff familiar with the hazards of the community	X		All Departments			
Administrative	Personnel skilled in Geographical Information Systems (GIS) and / or FEMA's HAZUS program	Х		Planning			
7.	Grant writers or fiscal staff to handle large / complex grants	Х		All Department			
	Other						

# **Capability Assessment** – continued

Capability		Yes	No	Department / Agency	Change since 2018 Plan? + Positive - Negative	How can these capabilities be expanded and improved to reduce risk?	Additional Comments
	Capital improvement programming	X		Finance & Administration			
	Community Development Block Grants (CDBG)	X		Economic Development			
seo	Special purposes taxes	X		Finance & Administration			
Resources	Gas / Electricity utility fees	X		Finance & Administration			
	Water / Sewer fees	Х		Finance & Administration			
Financial	Stormwater utility fees	Х		Finance & Administration			
3. Fir	Development impact fees	Х		Finance & Administration			
	General obligation, revenue, and / or special tax bonds	Х		Finance & Administration			
	Partnering arrangements or intergovernmental agreements	X		Administration			
	Other						

# **Capability Assessment** – continued

Capability	✓ Program ✓ Organization	Yes	No	Department / Agency	Change since 2018 Plan? + Positive - Negative	How can these capabilities be expanded and improved to reduce risk?	Additional Comments
	Firewise Communities Certification						
ch	StormReady Certification						
ea.	Natural disaster or safety-related school programs	Х		Fire	New Program		
n & Outrea	Ongoing public education or information programs such as, responsible water use, fire safety, household preparedness, and environmental education.	Х		Fire	New Program		
atior	Public-private partnership initiatives addressing disaster related issues.						
4. Educati	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	Х		Nurture Nature	New program for Environmental Education	They are studying City Vulnerability	
	Other						

Capability		Degree of Capability			Change since the 2018 Hazard Mitigation Plan? If so, how?	Additional Comments			
င်ဒ		Limited	Moderate	High	11 30, 110 11				
Ħ	Planning and Regulatory		X						
Self – essment	Administrative and Technical		Х						
5. Sel	Financial		Х						
Ä	Education and Outreach		Х						

# **Known or Anticipated Future Development / Redevelopment**

Development / Property Name	Type of Development	Number of Structures	Known Hazard Zone	Description / Status
None				

# **Natural & Non-Natural Event History Specific to the City of Easton**

Type of Event and Date(s)	FEMA Disaster # (if applicable)	Local Damage(s) or Loss(es)
COVID-19 Pandemic – March, 2020	DR-4506-PA	Emergency Protective measures to combat COVID-19 Pandemic.
Remnants of Hurricane Ida – August, 2022	DR-4618-PA	Assistance to eligible individuals and families affected by this disaster.

# **2018 Municipal Action Plan Status**

				Status			
	Existing Mitigation Action (from 2018 Hazard Mitigation Plan)	No Progress / Unknown	In Progress	Continuous	Completed	Discontinued	Additional Comments
1	Dam removals from Bushkill Creek.			X			
2	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:  - Movement of mechanicals to floors above flood elevations  - Strict enforcement of statewide building codes  - Flood notifications  - Post flood assessments  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.			Х			
3	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:  - Purchase properties by eminent domain  - Acquire blighted properties  - Prevent inappropriate re-development through zoning & codes  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.			X			
4	Maintain compliance with and good standing in the NFIP including adoption & enforcement of floodplain management requirements (e.g. regulating all new & substantially improved construction in Special Hazard Flood Areas), floodplain identification & mapping, & 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.			X			

# **2018 Municipal Action Plan Status** – *continued*

				Status			
	Existing Mitigation Action (from 2018 Hazard Mitigation Plan)	No Progress / Unknown	In Progress	Continuous	Completed	Discontinued	Additional Comments
5	Conduct and facilitate public education & outreach for residents & businesses to include, but not be limited to, the following to promote & effect natural hazard risk reduction:  - Provide & maintain links to the HMP website, & regularly post notices on the County / municipal homepage(s) referencing the HMP webpages.  - Prepare & distribute informational letters to flood vulnerable property owners & neighborhood associations, explaining the availability of mitigation grant funding to mitigate their properties, & 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.			Х			
6	Begin and/or continue the process to adopt higher regulatory standards to manage flood risk (i.e. increased freeboard, cumulative substantial damage/improvements).			X			
7	Determine if a Community Assistance Visit (CAV) or Community Assistance Contact (CAC) is needed, and schedule if needed.			X			
8	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.			Х			
9	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			
10	Obtain and archive elevation certificates for NFIP compliance.			X			
11	Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0.			X			
12	Complete the ongoing updates of the Comprehensive Emergency Management Plans.			X			
13	Create/enhance/maintain mutual aid agreements with neighboring communities for continuity of operations.			X			

# **2018 Municipal Action Plan Status** – *continued*

				Status			
	Existing Mitigation Action (from 2018 Hazard Mitigation Plan)	No Progress / Unknown	In Progress	Continuous	Completed	Discontinued	Additional Comments
14	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.			X			
15	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			
16	PA-611 Bushkill Creek Bridge – Continue to petition state DOT to perform necessary mitigation of bridge.			X			
17	Cemetery Bridge – Identify appropriate mitigation, secure funding, implement mitigation project.			X			
18	Hugh Moore Park Bridge– Identify appropriate mitigation, secure funding, implement mitigation project.			Х			
19	Glendon Bridge– Identify appropriate mitigation, secure funding, implement mitigation project.			X			
20	Relocate City Services Center (500 Bushkill Drive) - currently in Bushkill Creek flood area. Studying feasibility and potential relocation sites.			Х			

### Notes:

- **1.** Actions not carried through to the 2023 Action Plan are so noted.
- 2. To maintain National Flood Insurance Program (NFIP) compliance, actions related to the NFIP were carried through to the 2023 Action Plan even if identified by the municipality as completed.

# **2023 Mitigation Action Plan**

Mitigation Action	Mitigation Action Category	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
Dam removals from Bushkill Creek.	24	Structure & Infrastructure	Flood	Medium	Medium - High	FEMA Mitigation Grant Programs &Municipal Budget (or Property Owner) for cost share	Engineering / Public Works	Long-term (depending on funding)	Existing
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:  - Movement of mechanicals to floors above flood elevations - Strict enforcement of statewide building codes - Flood notifications  - Post flood assessments 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.	1	Structure & Infrastructure	Flood, Windstorm/ Tornado, Earthquake	Medium- High	High	FEMA Mitigation Grant Programs & Municipal Budget (or property owner) for cost share	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) w/ support from PEMA, FEMA	Long-term (depending on funding)	Existing

Mitigation Action	Mitigation Action Category	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
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:  - Purchase properties by eminent domain - Acquire blighted properties  - Prevent inappropriate redevelopment through zoning & codes Phase 1: Identify appropriate candidates for relocation based on costeffectiveness 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.	1	Structure & Infrastructure	Flood	High	High	FEMA Mitigation Grant Programs & Municipal Budget (or property owner) for cost share	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) w/ support from PEMA, FEMA	Long-term (depending on funding)	Existing

Mitigation Action	Mitigation Action Category	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
Maintain compliance with and good-standing in the NFIP including adoption & enforcement of floodplain management requirements (e.g. regulating all new & substantially improved construction in Special Hazard Flood Areas), floodplain identification & mapping, & 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.	3	Local plans & Regulations	Flood	High	Low - Medium	Municipal Budget	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) w/ support from PEMA, ISO FEMA	Ongoing	New & Existing

	Mitigation Action	Mitigation Action Category	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
5	public education & outreach for residents & businesses to include, but not be limited to, the following to promote & effect natural hazard risk reduction: - Provide & maintain links to the HMP website, & regularly post notices on the County / municipal homepage(s) referencing the HMP webpages Prepare & distribute informational letters to flood vulnerable property owners & neighborhood associations, explaining the availability of mitigation grant funding to mitigate their properties, & 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.	27	Education & Awareness	All Hazards	High	Low- Medium	Municipal Budget	Municipality w/ support from Planning Partners, PEMA, FEMA	Short-term	N/A

Mitigation Action	Mitigation Action Category	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
Begin and/or continue the process to adopt higher regulatory standards to manage flood risk (i.e. increased freeboard, cumulative substantial damage/improvements).	5	Local plans & Regulations	Flood	High	Low	Municipal Budget	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) w/ support from PEMA, FEMA	Short-term	New & Existing
Determine if a Community Assistance Visit (CAV) or Community Assistance Contact (CAC) is needed, and schedule if needed.	3	Local plans & Regulations	Flood	High	Low	Municipal Budget	NFIP Floodplain Administrator w/ support from PADEP, PEMA, FEMA	Short-term (year 1)	N/A
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.	6	Local plans & Regulations	Flood	Medium	Low	Municipal Budget	NFIP Floodplain Administrator	Short-term (depending on funding)	N/A
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.	7	Local plans & Regulations	Flood	High	Low	Municipal Budget	NFIP Floodplain Administrator w/ support from PADEP, PEMA, FEMA	Short-term (year 1)	N/A

	Mitigation Action	Mitigation Action Category	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
10	Obtain and archive elevation certificates for NFIP compliance.	8	Local plans & Regulations	Flood	Low	Low	Municipal Budget	NFIP Floodplain Administrator	Ongoing	N/A
11	Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0.	9	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) w/ support from Planning Partners (through their Points of Contact), PEMA	Ongoing	New & Existing
12	Complete the ongoing updates of the Comprehensive Emergency Management Plans.	10	Local plans & Regulations	Flood	Medium	Low	Municipal Budget	NFIP Floodplain Administrator w/ support from PADEP, PEMA, FEMA	Ongoing	New & Existing
13	Create/enhance/maintain mutual aid agreements with neighboring communities for continuity of operations.	11	All Categories	All Hazards	Medium	Low	Municipal Budget	Municipality w/ support from surrounding municipalities & County	Ongoing	New & Existing
14	Develop & 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.	12	Education & Awareness	All Hazards	Low	Medium	Municipal Budget	Municipality w/ support from County, PEMA, FEMA	Short-term	N/A

	Mitigation Action	Mitigation Action Category	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
15	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).	13	Education & Awareness	All Hazards	Medium	Medium	Municipal Budget, FEMA HMA grant programs	Municipality w/ support from County, PEMA	Short-, long- term (depending on funding)	N/A
16	PA-611 Bushkill Creek Bridge – Continue to petition state DOT to perform necessary mitigation of bridge.	25	Structure & Infrastructure	Flood	Medium	High	State Infrastructure Budget	State DOT	Long-term (depending on funding)	Existing
17	Cemetery Bridge – Identify appropriate mitigation, secure funding, implement mitigation project.	25	Structure & Infrastructure	Flood	Medium	High	Municipal Budget; Grant funding as available	Engineering / Public Works	Long-term (depending on funding)	Existing
18	Hugh Moore Park Bridge– Identify appropriate mitigation, secure funding, implement mitigation project.	25	Structure & Infrastructure	Flood	Medium	High	Municipal Budget; Grant funding as available	Engineering / Public Works	Long-term (depending on funding)	Existing
19	Glendon Bridge– Identify appropriate mitigation, secure funding, implement mitigation project.	25	Structure & Infrastructure	Flood	Medium	High	Municipal Budget; Grant funding as available	Engineering / Public Works	Long-term (depending on funding)	Existing
20	Relocate City Services Center (500 Bushkill Drive) - currently in Bushkill Creek flood area. Studying feasibility and potential relocation sites.	2	Structure & Infrastructure	Flood	High	High	Municipal Budget; Grant funding as available	Engineering / Public Works	Long-term (depending on funding)	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 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