

# Upper Mount Bethel Township, Northampton County Annex

## Hazard Mitigation Plan Points-of-Contact

### Primary:

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### Alternate:

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## Municipal Profile

Upper Mount Bethel Township is located in the far northeast corner of Northampton County, sharing borders with Monroe County, Pa, and with New Jersey. The township encompasses an area of 44.3 square miles and has a population of 6,706 (2010 Census). Neighboring municipalities include Washington Township and East Bangor to the southwest; Lower Mount Bethel Township to the south; Belvidere, NJ to the southeast; Portland Borough and townships in the state of New Jersey to the east; and Delaware Water Gap, Stroud Township, and Hamilton Township (all in Monroe County, PA) to the north.

Upper Mount Bethel Township is within the Delaware River Watershed, and is drained by the Delaware River, which forms its eastern boundary separating it from New Jersey. Jacoby Creek in the north of the township, and Allegheny Creek in the south-central part of the township are tributaries to the Delaware River. Other creeks and minor waterways flow from the western part of the township in Martins Creek, also a tributary of the Delaware River further south. There are also a few bodies of standing water in the northern part of the township, including Minsi Lake and Echo Lake.

Three state highways intersect the township; SR 191 runs north-south in the northwestern part of the township, connecting the Lehigh Valley to the Poconos in eastern Pennsylvania. SR 512 travels east-west paralleling railroad tracks through the center of the township as Mount Bethel Highway, and terminates at a “T” intersection with SR 611. SR 611 also cross the township from the lower west to the mid-west, where it veers north paralleling the Delaware River as Delaware Drive.

## 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.

## Municipal Participation – *continued*

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.

## 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	Yes
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	Administration by Justin Coyle, PE, of Carrol Engineering Company Inc., who conducts permit review, subdivision review and inspections and provides GIS mapping. Township staff provide education and outreach.
What are the barriers to running an effective NFIP program in the community, if any?	Community FPA	Rural families living in the floodplain on low or fixed incomes may behave outside the regulations with accessory structure installations and small additions to existing structures.
<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?		Yes

**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	Both digital and paper. The zoning officer helps residents with the mapping, explaining how the mapping works and then looks up the mapping either digitally or on paper. The Township Manager is also familiar with the mapping and can assist residents. The mapping can also be placed on the website.
Do floodplain regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	The floodplain regulations exceed the minimum for first floor elevation of a structure, requiring 1.5' freeboard above the 100-year elevation.
Describe the permitting process	Community FPA, State, FEMA NFIP	All applicants must apply to the Zoning Hearing Board for permits.
<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	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> )	Unknown
What categories and activities provide CRS points and how can the Class be improved?		Educational outreach and permit tracking
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, or ISO representative	No plan

## 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.

There are elderly and physically or mentally disabled persons living in private homes in river communities, such as Slateford, Sandy Shore, and along the River Road corridor. There are no group homes or medical facilities located within our borders.

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

Several hundred people visit the Tuscarora Inn and Conference Center. Several hundred people stay at the Driftstone Campground south of the Tuscarora Inn. On any given weekend, there could be as many as a thousand visitors at these two locations. Along the Blue Mountain, there are groups that meet at Kirkridge Retreat. There are hikers along the Appalachian Trail, thousand that pass through each year.

### 2. Economy

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

Bangor Area School District

Air Liquide

LamTech

Custom Laminating

Slicing Tech

Smith-Wilbert

There are also seasonal businesses – Tuscarora Inn and Conference Center and five campgrounds, with one campground, Driftstone, entirely located in the General Floodplain.

There are over 20 farms, mostly located in the Southern area.

## 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.

Upper Mount Bethel Township has more wetlands than any other township in Northampton County, including Mt. Bethel Fens in the Jacoby Creek Watershed; the recently township-owned and preserved Eastern Properties, with 13 ponds and several acres of wetlands; and large wetland areas on the Martin's Creek Watershed near Minsi Lake.

### 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.

Several old private homes in Slateford (General Floodplain), Sandy Shore (General Floodplain), and along River Road

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

There are commercial gas lines that cross the Township, commercial water systems that are privately owned, and a portion of the wastewater piping for Portland Borough located within our borders. NRG Power Plant (formerly Portland Generating Station).

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

Minsi Lake Dam

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

Mount Bethel Volunteer Fire Company, Mount Bethel (also a shelter)  
North Bangor Fire Hall, Bangor, PA 18013  
Upper Mount Bethel Township Municipal Building, Mount Bethel  
Bangor Area School District, Mount Bethel

**Community Assets – continued**

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

Slate Belt Museum, Mount Bethel  
 Mount Bethel Community Park, Mount Bethel  
 Eastern Properties Preserve, Mount Bethel

**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	7/9/2001			+	N/A			
	Capital Improvement Plan			X						
	Economic Development Plan			X						
	Continuity of Operations Plan	X	11/8/2010		UMBT	+				
	Stormwater Management Plan / Ordinance	X	4/9/2007			+	N/A			
	Open Space Management Plan (or Parks/Rec., Greenways Plan)	X	3/04; 3/09			+	N/A			
	Natural Resource Protection Plan	X	3/2009			+	N/A			
	Transportation Plan									
	Historic Preservation Plan			X						
	Floodplain Management Plan		4/2014	X						
	Farmland Preservation	X	3/2009		UMBT	+	N/A			
	Evacuation Plan	X	11/8/2010		UMBT	+				
Disaster Recovery Plan	X	11/8/2010		UMBT	+					

**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	2/2019	X						
	Emergency Operations Plan	X	3/2020		UMBT	+				
	Zoning Regulations	X	3/15/2004		UMBT	+	N/A			
	Floodplain Regulations	X	4/2014		UMBT	+				
	NFIP Participation	X			UMBT	+				
	Building Code	X	6/14/2004			+	N/A			
	Fire Code	X	6/14/2004			+	N/A			
	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		Township Engineer, UMBT Planning Commission			
	Planners or engineers (with natural and / or human-caused hazards knowledge)	X		Township Engineer			
	Engineers or professionals trained in building and / or infrastructure construction practices (including building inspectors)	X		Building Codes			
	Emergency Manager	X		Emergency Management			
	Floodplain administrator / manager	X		Floodplain Administrator			
	Land surveyors	X		Township Engineer			
	Staff familiar with the hazards of the community	X		Zoning, Road			
	Personnel skilled in Geographical Information Systems (GIS) and / or FEMA's HAZUS program	X		Township Engineer			
	Grant writers or fiscal staff to handle large / complex grants	X		Management, Bookkeeping			
	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		Management		
	Community Development Block Grants (CDBG)		X			
	Special purposes taxes		X			
	Gas / Electricity utility fees		X			
	Water / Sewer fees		X			
	Stormwater utility fees		X			
	Development impact fees		X			
	General obligation, revenue, and / or special tax bonds	X		Management		
	Partnering arrangements or intergovernmental agreements	X		Management, Road		
	Other					

**Capability Assessment – continued**

Capability	✓ Program ✓ Organization			Department / Agency	Change since 2013 Plan? + Positive - Negative	How can these capabilities be expanded and improved to reduce risk?	Additional Comments
		Yes	No				
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		Township and Air Liquide	There were incidents at Air Liquide (formerly Voltaix) that resulted in monthly safety/hazard mitigation meetings with the public.	It could be improved to include other companies within the township.	
	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	X					
	Other						

**Capability Assessment – continued**

Capability	Area	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	New township engineer with experience in hazard mitigation	
	Financial			X	Financially solvent, low debt / assets ratio	
	Education and Outreach	X			Small, overworked staff	

**Known or Anticipated Future Development / Redevelopment**

Development / Property Name	Type of Development	Number of Structures	Location	Known Hazard Zone	Description / Status
River Pointe Logistics Center	Industrial Park	15	River Road	None	7 Million SF – Planned Industrial Park

**Natural & Non-Natural Event History Specific to Upper Mount Bethel Township**

Type of Event and Date(s)	FEMA Disaster # (if applicable)	Local Damage(s) or Loss(es)
Severe winter storm / snowstorm, January 22 - 23, 2016	DR-4267-PA	\$42,000 in losses due to major snow storm
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	Sandy Shore Drive Relocation (from 2006 plan) – Chronic flooding on Sandy Shore Drive off River Road will require the road to be relocated to prevent further damage by the Delaware River.	X					
2	Sandy Shore Drive and River Road Drainage Improvements (from 2006 plan) – Increase water management capacity with additional basins and larger piping to alleviate damage to two township roads and residents.	X					
3	Creek Road at Fox Gap Road Culvert Improvements (from 2006 plan) – Install a larger box culvert.				X		
4	Stormwater Improvements at 288 Slateford Road (from 2006 plan) – Increase pipe capacity to alleviate severe flooding that impacts two residents, PennDOT, Monroe County Rail Authority, Norfolk Southern Rail, and UMBT.				X		
5	Enhance tree management programs throughout the Township to control power outages and debris management. (from 2006 plan)		X				
6	Riverton Road Drainage Relocation – relocated drainage pipe south of River Road that has resulted in significant road damage.	X					
7	Carolee Road Drainage Improvements – install new inlet box, pipe and a longer retention basin to prevent further flooding of road and homes located along Carolee Lane.		X				
8	Deer Run Lane Swale Improvements – install larger swale with riprap protection to alleviate washouts on Deer Run Lane, ¼ mile above Hemlock.				X		
9	Quakerplain Road Culvert Improvements – Install box culvert to alleviate stormwater damage to Quakerplain Road below Persimmon Lane.	X					
10	1855 Ridge Road Flood Protection – Install new piping and two new inlet boxes to manage stormwater and mitigate flooding to properties along Ridge Road.	X					
11	National Park Drive Culvert Improvement – Install box culvert to manage stormwater and alleviate road damage.				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	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 is Kovar Lane (private road) that floods during significant flood events and prevents ingress/egress to residents. 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.	X					
13	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. 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					
14	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.		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	
15	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					
16	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					
17	Determine if a Community Assistance Visit (CAV) or Community Assistance Contact (CAC) is needed, and schedule if needed.	X					
18	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					
19	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					
20	Archive elevation certificates	X					
21	Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0	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	
22	Complete the ongoing updates of the Comprehensive Emergency Management Plans	X					
23	Create/enhance/ maintain mutual aid agreements with neighboring communities for continuity of operations.			X			
24	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					
25	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
<b>1</b>	Sandy Shore Drive Relocation (from 2006 plan) – Chronic flooding on Sandy Shore Drive off River Road will require the road to be relocated to prevent further damage by the Delaware River.	Structure & Infrastructure	Flood	Medium	High	FEMA Mitigation Grant Programs; municipal budget for cost share	Township Engineering and Public Works	Long-term (depending on funding)	Existing
<b>2</b>	Sandy Shore Drive and River Road Drainage Improvements (from 2006 plan) – Increase water management capacity with additional basins and larger piping to alleviate damage to two township roads and residents.	Structure & Infrastructure	Flood	Medium	High	FEMA Mitigation Grant Programs; municipal budget for cost share	Township Engineering and Public Works	Long-term (depending on funding)	Existing
<b>3</b>	Creek Road at Fox Gap Road Culvert Improvements (from 2006 plan) – Install a larger box culvert.	Structure & Infrastructure	Flood	Medium	Medium	FEMA Mitigation Grant Programs; municipal budget for cost share	Township Engineering and Public Works	Long-term (depending on funding)	Existing
<b>4</b>	Stormwater Improvements at 288 Slateford Road (from 2006 plan) – Increase pipe capacity to alleviate severe flooding that impacts two residents, PennDOT, Monroe County Rail Authority, Norfolk Southern Rail, and UMBT.	Structure & Infrastructure	Flood	Medium	Medium	FEMA Mitigation Grant Programs; municipal budget for cost share	Township Engineering and Public Works	Long-term (depending on funding)	Existing
<b>5</b>	Enhance tree management programs throughout the Township to control power outages and debris management. (from 2006 plan)	Structure & Infrastructure	Windstorm, Winter Storm, Utility Interruption	High	Medium	Municipal Budget	Township Public Works	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
6	Riverton Road Drainage Relocation – relocated drainage pipe south of River Road that has resulted in significant road damage.	Structure & Infrastructure	Flood	Medium	Medium	FEMA Mitigation Grant Programs; municipal budget for cost share	Township Engineering and Public Works	Short-term	Existing
7	Carolee Road Drainage Improvements – install new inlet box, pipe and a longer retention basin to prevent further flooding of road and homes located along Carolee Lane.	Structure & Infrastructure	Flood	Medium	Medium	FEMA Mitigation Grant Programs; municipal budget for cost share	Township Engineering and Public Works	Short-term	Existing
8	Deer Run Lane Swale Improvements – Install larger swale with riprap protection to alleviate washouts on Deer Run Lane, ¼ mile above Hemlock.	Structure & Infrastructure	Flood	Medium	Low	Municipal Budget	Township Engineering and Public Works	Short-term	Existing
9	Quakerplain Road Culvert Improvements – Install box culvert to alleviate stormwater damage to Quakerplain Road below Persimmon Lane.	Structure & Infrastructure	Flood	Medium	Low	Municipal Budget	Township Engineering and Public Works	Short-term	Existing
10	1855 Ridge Road Flood Protection – Install new piping and two new inlet boxes to manage stormwater and mitigate flooding to properties along Ridge Road.	Structure & Infrastructure	Flood	Medium	Low	Municipal Budget	Township Engineering and Public Works	Short-term	Existing
11	National Park Drive Culvert Improvement – Install box culvert to manage stormwater and alleviate road damage.	Structure & Infrastructure	Flood	Medium	Medium	FEMA HMGP; municipal budget for cost share	Township Engineering and Public Works	Short-term	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>12</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.</p> <p>Specifically identified is Kovar Lane (private road) that floods during significant flood events and prevents ingress/egress to residents.</p> <p>Phase 1: Identify appropriate candidates for retrofitting based on cost- effectiveness versus relocation.</p> <p>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>	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>13</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.</p> <p>Phase 1: Identify appropriate candidates for relocation based on cost- effectiveness versus retrofitting.</p> <p>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**

	<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>14</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 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>15</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> </ul>	Education & Awareness	All Hazards	High	Low-Medium	Municipal Budget	Municipality with support from Planning Partners, 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
16	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).	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
17	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
18	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	N/A
19	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
20	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
21	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
22	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
23	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
24	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
25	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	Municipal Budget, FEMA HMA grant programs	Municipality with support from County, PEMA	Short-, long-term (depending on funding)	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 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