

Lower Macungie Township, Lehigh County Annex

Hazard Mitigation Plan Points-of-Contact

Primary:

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Alternate:

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Municipal Profile

Lower Macungie Township is a residential suburban community located in Lehigh County, immediately west of the City of Allentown. The Township currently encompasses 22.9 square miles and has a population of 30,633 (2010 Census). The township is bordered by; Upper Macungie Township to the northwest; Salisbury Township and Emmaus Borough to the east; and Upper Milford Township and Berks County to the south and southwest.

Little Lehigh Creek and Swabia Creek wind through the township draining from sources in Berks and Lehigh Counties. Swabia Creek joins the Little Lehigh Creek in Lower Macungie Township and then drains into the Lehigh River in Allentown.

Lower Macungie's main north-south roads are Route 100, Spring Creek Road, Brookside Road, and Route 29 in the extreme east. Main east-west roads include U.S. Route 222 (which interchanges with Interstate 78 / Highway 309 in the extreme north,) Lower Macungie Road, and Mountain Road to the south.

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.

Sara Pandl, Planning Director
Role: Review of submitted plans

Carl Best, Zoning Officer / Floodplain Administrator
Role: Review FEMA maps and floodplain ordinance

Dennis Hinkel, Public Works Director
Role: Review re-occurring flooding issues known to township roads and property

Barbara Ferri, Emergency Management Agency Director
Role: Review for compliance to NIMS in case of emergency

Vince Tranguch, Code Enforcement
Role: Administration

Alan Fornwalt, Keystone Consulting Engineers
Role: Plan review

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.

- Mack Trucks
- Smooth-On
- Community Associations
- East Penn School District

Gather input and resources that these corporations can offer.

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.

Include information in newsletters, hold public meeting for input from residents.

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	Yes
Is floodplain management an auxiliary function?	Community FPA	No, primary
Provide an explanation of NFIP administration services (e.g., permit review, GGIS, education or outreach, inspections, engineering capability)	Community FPA	Mapping, GIS, plan review, permitting
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)?		2015
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
3. Regulation		
When did the community enter the NFIP?	NFIP Community Status Book	6/28/1974
Are the Flood Insurance Rate Maps (FIRMs) digital or paper? How are residents assisted with mapping?	Community FPA	Paper
Do floodplain regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	Exceed, Lower Macungie Township regulates properties in the 500-year floodplain.
Describe the permitting process	Community FPA, State, FEMA NFIP	Zoning review prior to permit issuance.
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	
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	
5. Community Rating System (CRS)		
Does the community participate in CRS?	Community FPA, State, or FEMA NFIP	No, but planning to enroll – applied 2016.
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.

Assisted living facilities

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

East Penn School District – 4 facilities in the township

2. Economy

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

Mack Trucks
Walmart

Smooth-On
Hamilton Crossings

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.

Township acquisition of floodplain areas within the township
Greenway protection and improvement planning

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.

Few structures in floodplain from original farming developments

Community Assets – continued

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

- High potential loss facilities such as, dams, locations that house hazardous materials, military and / or civilian defense installations.
 - Buckeye Pipeline Tank Farm
 - Norfolk Southern railroad traverses the Township

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

Shoemaker Elementary School	Lower Macungie Middle School
Eyer Middle School	Willow Lane Elementary School
Brandywine Fire Station	Lower Macungie Township Community Center
Wescosville Fire Station	Lower Macungie Township Public Works Building
Lower Macungie Township Emergency Management Agency Operations Center	

- Cultural / historical resources such as, museums, parks, stadiums, etc.
 - Log Haus – Lower Macungie Township Historical Building – Wescosville Park
 - Lower Macungie Township Historical Society – Camp Olympic

Capability Assessment

Capability	✓ Regulatory ✓ Tools ✓ Programs	Status			Department / Agency Responsible	Effect on Hazard Loss Reduction: -Supports -Neutral -Hinders	Change since 2013 Plan? + Positive - Negative	Has the 2013 Plan been integrated into the Regulatory Tool/Program ? If so, how?	How can these capabilities be expanded and improved to reduce risk?	Additional Comments
		In Place	Date Adopted or Updated	Under Development						
1. Planning & Regulatory	Comprehensive Plan	X			Planning	S	+			
	Capital Improvement Plan	X			Township Administration	N	+			
	Economic Development Plan									
	Continuity of Operations Plan									
	Stormwater Management Plan / Ordinance	X	Updated 2011		Lehigh Valley Planning Commission/ Chapter 23 A	S	+			Lower Macungie Township ordinance Chapter 23 A
	Open Space Management Plan (or Parks/Rec., Greenways Plan)	X	Adopted 11/2012		Planning/ Public Works	S	+			Lower Macungie Township Greenway Plan incorporates 500-year floodplain.
	Natural Resource Protection Plan	X	1998		Zoning	S	+			Environmental Protection Areas - Part 19 Zoning Ordinance
	Transportation Plan	X			LVPC	S	+			
	Historic Preservation Plan			X	Planning	N	+			

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	Floodplain Management Plan	X			Zoning					Lower Macungie Township 2.0. Chapter 27A
	Farmland Preservation	X	2005		Planning	S	+			Included in comprehensive plan
	Evacuation Plan									
	Disaster Recovery Plan									
	Hazard Mitigation Plan	X						N/A		
	Emergency Operations Plan	X	2017							
	Zoning Regulations	X	Updated 2011		Planning, Zoning	S	+			
	Floodplain Regulations	X			Planning, Zoning	S				
	NFIP Participation	X	1974		Planning, Zoning	S	+			
	Building Code	X			Planning, Zoning	S				
	Fire Code	X			Planning, Zoning	S				
Other	X	June 2016		Planning	S	+			Official Map - allows acquisition of prime agricultural land and floodplains.	

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)						
	Planners or engineers (with natural and / or human-caused hazards knowledge)						
	Engineers or professionals trained in building and / or infrastructure construction practices (including building inspectors)						
	Emergency Manager						
	Floodplain administrator / manager						
	Land surveyors						
	Staff familiar with the hazards of the community						
	Personnel skilled in Geographical Information Systems (GIS) and / or FEMA's HAZUS program						
	Grant writers or fiscal staff to handle large / complex grants						
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					
3. Financial Resources	Capital improvement programming	X		Township Administration	Yes	Additional funding	Acquisition of open space since 2013
	Community Development Block Grants (CDBG)	X		Administration	Limited ability to utilize		
	Special purposes taxes		X				
	Gas / Electricity utility fees		X				
	Water / Sewer fees	X		Township Administration	No	Utilized to address I&I issues/ maintenance	
	Stormwater utility fees		X			Considering as MS4 in future	
	Development impact fees	X		Planning	Yes	Used for traffic and open space future acquisition	Increase land dedication rights since 2013 for open space
	General obligation, revenue, and / or special tax bonds	X		Township Administration	Yes		Township line of credit used for open space acquisition.
	Partnering arrangements or intergovernmental agreements	X		Planning/ Engineering	Yes		Partner with Lehigh Valley Planning Commission and Lehigh County Conservation District Act 167 administration
Other	X		Township Administration	Yes	Additional funding	Acquisition of open space since 2013	

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						
	StormReady Certification						
	Natural disaster or safety-related school programs						
	Ongoing public education or information programs such as, responsible water use, fire safety, household preparedness, and environmental education.	X		Township Administration	Yes		Newsletter published quarterly. Website updates as needed.
	Public-private partnership initiatives addressing disaster related issues.	X		Township Administration	Yes		Ongoing with Buckeye Pipeline and Lower Macungie Township Fire Department
	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	X		Township Environmental Advisory Council and Emergency Management			
Other	X		Committees of Board of Commissioners	Yes		Internal Safety Committee Public Safety Committee	

Capability Assessment – continued

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

Known or Anticipated Future Development / Redevelopment – continued

Development / Property Name	Type of Development	Number of Structures	Location	Known Hazard Zone	Description / Status
Schaefer Run Commons West	55 and over (6 models)	112 units	1550 PA Route 100 (?) PINs?--546436126075, 546434588248, 546445195577	No	Vacant - Proposed Development Jaendl - Open Space = Floodplain (48% of development site) ~108 acres, portion in Upper Milford Township (157 units) will be built first
Park Side Crossings		12	3510 Macungie Road	No	12-lot residential development
Macungie Crossing	Anchor + up to 5 stores		5877 Hamilton Boulevard	No	Shopping Center, 27 acres
Farr Tract			Lower Macungie Road and Cedar Crest Blvd	No	38-17 lots Single Family Dwellings
Woodmont	Weis & 2 pad sites		3535 Grandview Drive	No	Weis Supermarket with fuel station and 2 pad sites
LVSIP	Warehouses		3100 Alburtis Rd, 2929 & 3041 Schoeneck Rd	No	1/3 occupied?
Red Maple Acres	Mobile home park	29	1170 Grange Road	No	Mobile Home Park - 29 units

Known or Anticipated Future Development / Redevelopment – *continued*

Development / Property Name	Type of Development	Number of Structures	Location	Known Hazard Zone	Description / Status
Millbrook Farms	Single Family Dwellings	45	Sauerkraut & Indian Creek Roads	No	Single Family Dwellings - 45 units
Hillview Farms	Single Family Dwellings	24	900 Hillview Road	No	Single Family Dwellings - 24 units
Kratzer Farm	Open and Ag	-----	1966 Willow Lane	Includes floodplain	~30 acres of open space
Spring Creek Properties	Industrial/ Commercial/ Residential/Park	?	Congdon Hill Drive, Spring Creek Road, Mertztown Road	Includes floodplain	3 lots - Industrial/warehouses to be built: 3 - Commercial, 3 industrial, 2 parks, 1 - 37-acre tract easement? And 2 residential - 300+?
Hamilton Crossings	Mixed Use	?	Area north of bypass	No	Mixed Use - Residential & Commercial or All Commercial
Yen Family	Single Family Dwellings	4	East Texas Road near Brookside Rd	No	2 parcels - 4 lots
West Valley Marketplace	Commercial	1	1142 Mill Creek Road	No	Lot 21A - Commercial
Weiner Tract	Residential	?	Sauerkraut & Brookside Roads	Includes floodplain	Zoned Residential, prefer to preserve, need funds
Lichtenwalner Farm	Residential	?	Indian Creek Road	Runoff, floodplain possible	Zoned Residential, prefer to preserve, need funds
Dorney Tract	Residential	?	near Camp Olympic	No	Zoned Residential, prefer to preserve, need funds

Natural & Non-Natural Event History Specific to Lower Macungie Township

Type of Event and Date(s)	FEMA Disaster # (if applicable)	Local Damage(s) or Loss(es)
Winter Storm Jonas – 1/2026	DR-4267-PA	Public works manpower / material; no loss to infrastructure
Pennsylvania COVID-19 Pandemic – 1/2020	DR-4506-PA	Emergency Protective measures to combat COVID-19 Pandemic.

2013 Municipal Action Plan Status

Existing Mitigation Action (from 2013 Hazard Mitigation Plan)		Status					Additional Comments
		No Progress / Unknown	In Progress	Continuous	Completed	Discontinued	
1	Establish riparian buffers			X			Buffers established with new development
2	North Brookside Road Stream Clearing – Large trees fallen into the creek have resulted in flooding to a private residence. Efforts to clear snags have been limited by DEP restrictions and private property access issues.			X			Ongoing property protection for bordering properties
3	Weilers Road Bridge – Bridge is too low, causing debris to be caught under bridge resulting in flooding to two residences on Mertztown Road. DEP restrictions limit ability to clear debris. Bridge needs to be elevated, or routine debris clearing permit(s) need to be instated.			X			Ongoing monitoring for hazards
4	Work with Lehigh County EMA to install backup power at the Lower Macungie Township Public Works Facility – 5536 Indian Creek Road. This project part of the Lehigh Countywide Generator Project, funded through 2008 LPDM.				X		Action not carried through to 2018 Action Plan.
5	Retrofit (e.g. elevate) 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: - Mill Creek Road – 1 property 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				Funding availability

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	
6	<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"> - Woodbine Lane – 2 properties, 1 awaiting approval of a 2011 HMGP grant application - Spring Creek Road – 5 properties, 1 property awaiting approval of an HMGP grant application - Lower Macungie Road – 1 property - Mertztown Road – 2 properties Orchid Place – 1 property <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>				X		2 Woodbine properties & 1 Spring Creek purchased and razed. Action updated and carried through to the 2018 Action Plan.
7	<p>Maintain compliance with and good-standing in the NFIP including adoption and enforcement of floodplain management requirements (e.g. regulating all new and substantially improved construction in Special Hazard Flood Areas), floodplain identification and mapping, and flood insurance outreach to the community. Further, continue to meet and/or exceed the minimum NFIP standards and criteria through the following NFIP- related continued compliance actions identified below.</p>			X			

2013 Municipal Action Plan Status – continued

Existing Mitigation Action (from 2013 Hazard Mitigation Plan)		Status					Additional Comments
		No Progress / Unknown	In Progress	Continuous	Completed	Discontinued	
8	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				
9	Begin the process to adopt higher regulatory standards to manage flood risk (i.e. increased freeboard, cumulative substantial damage/improvements).	X					
10	Determine if a Community Assistance Visit (CAV) or Community Assistance Contact (CAC) is needed, and schedule if needed.		X				CAV completed. No progress further.
11	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				
12	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					Action revised based on municipal input and carried through to the 2018 Action Plan.
13	Archive elevation certificates		X				
14	Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0			X			
15	Complete the ongoing updates of the Comprehensive Emergency Management Plans			X			
16	Create/enhance/maintain mutual aid agreements with neighboring communities for continuity of operations.			X			

2013 Municipal Action Plan Status – continued

Existing Mitigation Action (from 2013 Hazard Mitigation Plan)		Status					Additional Comments
		No Progress / Unknown	In Progress	Continuous	Completed	Discontinued	
17	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					
18	Work with regional agencies (i.e. County and PEMA) to help develop damage assessment capabilities at the local level through such things as training programs, certification of qualified individuals (e.g. code officials, floodplain managers, engineers).			X			

Notes:

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

2018 Mitigation Action Plan

Mitigation Action		Mitigation Technique Category	Hazard(s) Addressed	Priority (H / M / L)	Estimated Cost	Potential Funding	Lead Agency / Department	Implementation Schedule	Applies to New and / or Existing Structures
1	Establish riparian buffers	Natural Systems Protection	Flood	Medium	Low	Municipal Budget	Planning	Short-term	N/A
2	North Brookside Road Stream Clearing – Large trees fallen into the creek have resulted in flooding to a private residence. Efforts to clear snags have been limited by DEP restrictions and private property access issues.	Natural Systems Protection	Flood	Medium	Low	Municipal Budget	Lower Macungie Road Department	Short-term	Existing
3	Weilers Road Bridge – Bridge is too low, causing debris to get caught under bridge resulting in flooding to two residences on Mertztown Road. DEP restrictions limit ability to clear debris. Bridge needs to be elevated, or routine debris clearing permit(s) need to be instated.	Structure & Infrastructure	Flood	Medium	Medium	Federal, State, County Grant Funding; Municipal budget	Lower Macungie Township and PennDOT	Short-term (depending upon funding)	Existing
4	Retrofit (e.g. elevate) 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: - Mill Creek Road – 1 property 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 Grants 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 upon 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>5 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: Spring Creek Road – 4 properties Lower Macungie Road – 1 property Mertztown Road – 2 properties Orchid Place – 1 property 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	High	High	FEMA Mitigation Grant Programs and Municipal budget (or property owner) for cost share	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from PEMA, FEMA	Long-term (depending upon funding)	Existing
<p>6 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>	Local plans & Regulations	Flood	High	Low	Municipal Budget	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from PEMA, ISO FEMA	Ongoing	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
7	<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:</p> <ul style="list-style-type: none"> - 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. 	Education & Awareness	All Hazards	High	Low-Medium	Municipal Budget	Municipality with support from Planning Partners, PEMA, FEMA	Short-term (depending upon funding)	N/A
8	<p>Begin and/or continue the process to adopt higher regulatory standards to manage flood risk (i.e. increased freeboard, cumulative substantial damage/improvements).</p>	Local plans & Regulations	Flood	High	Low	Municipal Budget	Via Mun. Engineer / NFIP Floodplain Admin.) w/ support from PEMA, FEMA	Short-term (depending upon funding)	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
9	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
10	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 upon funding)	N/A
11	Enroll in the NFIP Community Rating System (CRS) Program.	Local plans & Regulations	Flood	Medium	N/A	Municipal Budget	Planning/Zoning	Coordination with FEMA	N/A
12	Obtain and archive elevation certificates for NFIP compliance.	Local plans & Regulations	Flood	High	Low	Municipal Budget	NFIP Floodplain Administrator	Ongoing	N/A
13	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
14	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
15	Create/enhance/maintain mutual aid agreements with neighboring communities for continuity of operations.	All Categories	All Hazards	High	Low	Municipal Budget	Municipality with support	Ongoing	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
16	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
17	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-term (depending upon 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 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
- **HMGF** = 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