

Macungie Borough, Lehigh County Annex

Hazard Mitigation Plan Points-of-Contact

Primary:

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Alternate:

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Macungie Fire Chief
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Municipal Profile

Macungie Borough is located in the southwest corner of Lehigh County, within the Townships of Lower Macungie and Upper Milford. It encompasses an area of approximately 1 square mile, and has a population of 3,257 (2020 Census). The borough is mostly surrounded by Lower Macungie Township; however, the southeastern tip of Macungie Borough lies within Upper Milford Township. Other municipalities within relative proximity are Alburtis Borough to the west, and Emmaus Borough to the east.

Macungie Borough is located within the Little Lehigh Creek watershed. Two small tributaries to the Swabia Creek meet in the middle of the borough. The merged Swabia Creek then flows northeast through the borough, meets with Iron Run Creek in Lower Macungie Township, and drains into the Little Lehigh Creek.

The primary roadway serving Macungie Borough is State Route 100, which crosses the borough northwest-southeast as Main Street, providing routes north through Lower Macungie Township towards SR309, and routes south to Berks County, via Route 29 in Upper Milford Township. Other outlet streets include Church and Chestnut Streets to the southwest, and Walnut and Lehigh Streets east to Brookside Road. Willow Street provides an outlet to the north. The Norfolk Southern Reading railroad freight lines also cross east-west through the middle of the borough.

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.

John Brown, Borough Manager Role: Borough Manager	Ryan Kern, Borough Engineer Role: Engineering
Tracy Smith, Public Works Director Role: Public Works Maintenance	Ken Nicholson, Zoning/Code Enforcement Role: Enforcement
Michael Natysyn, Fire Chief Role: Planning	Chris Boehm, Borough Manager Role: Floodplain Administrator
Ronald Conrad, Mayor Role: Public Policy	Chris Becker, Council President Role: Public Policy

**please update table as needed*

- 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.

None

- 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: Newsletter, Facebook, Website

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	Yes
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Permit Review; GIS
What are the barriers to running an effective NFIP program in the community, if any?	Community FPA	Funding and staffing
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	N/A
Are the Flood Insurance Rate Maps (FIRMs) digital or paper? How are residents assisted with mapping?	Community FPA	Paper, assisted by Zoning Officer
Do floodplain regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	Meet
Describe the permitting process	Community FPA, State, FEMA NFIP	Permit plans are submitted to the Zoning / Code Enforcement Officer for review. If necessary, they are sent to the Borough

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

Topic	Identify source of information, if different from the one listed.	Additional Comments
		Engineer for review and Planning Commission prior to approval.
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	N/A
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	N/A
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	N/A
Describe any areas of flood risk with limited NFIP policy coverage	Community FPA or FEMA Insurance Specialist	N/A
5. Community Rating System (CRS)		
Does the community participate in CRS?	Community FPA, State, or FEMA NFIP	N/A
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.

Elderly
Daycares

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

Macungie Memorial Park Events-Das Awkscht Fescht and Wheels of Time Car show; school students attending special events at the park

2. Economy

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

Allen Organ
Kalmbach Memorial Park
Macungie Memorial Park
Main Street (downtown businesses)

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.

Stream bank restoration

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.

Macungie Meadows – Housing Authority of Lehigh County
Day Cares
Main Street businesses and residences
Building on Race Street – due to the age of the building, construction type and location

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

Macungie Borough Water System
Norfolk Southern Railroad
UGI Utilities
Macungie Borough Sewer System
SR 100
PPL

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

N/A

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

Macungie Police Department
Macungie Borough Hall
Macungie Volunteer Fire Department
Macungie Institute Community Center

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

Macungie Historic Society
Kalmbach Memorial Park
Macungie Memorial Park

Capability Assessment

Capability	✓ Regulatory ✓ Tools ✓ Programs	Status			Department / Agency Responsible	Effect on Hazard Loss Reduction: -Supports -Neutral -Hinders	Change since 2018 Plan? + Positive - Negative	Has the 2018 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	10/2017		Administration	S	+	No		
	Capital Improvement Plan									
	Economic Development Plan									
	Continuity of Operations Plan									
	Stormwater Management Plan / Ordinance	X	6/6/2005		Administration	N	-	No		
	Open Space Management Plan (or Parks/Rec., Greenways Plan)	X	2008		Administration	N	-	No		
	Natural Resource Protection Plan									
	Transportation Plan									
	Historic Preservation Plan									
	Floodplain Management Plan	X	12/2013		Administration	N		No	Funding / Staffing	
	Farmland Preservation									
	Evacuation Plan									
	Disaster Recovery Plan									
	Hazard Mitigation Plan	X	2018		LVPC	N		N/A		
	Emergency Operations Plan	X	2003		Emergency Management Coordinator	N			Staffing	
	Zoning Regulations	X	12/16/13		Administration	N				
	Floodplain Regulations	X	12/16/13		Administration	N		No		
	NFIP Participation	X	7/21/08		Administration	N				
	Building Code	X	10/15/12		Administration	N				
	Fire Code									
	Other									

Capability Assessment - *continued*

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
2. Administrative & Technology	Planners (with land use / land development knowledge)	X		Borough Engineer	No	training	
	Planners or engineers (with natural and / or human-caused hazards knowledge)	X		Borough Engineer	No	training	
	Engineers or professionals trained in building and / or infrastructure construction practices (including building inspectors)	X		Borough Engineer	No	training	
	Emergency Manager	X		Council	No	training	
	Floodplain administrator / manager	X		Zoning/Admin	No	training	
	Land surveyors	X		Borough Engineer	No	training	
	Staff familiar with the hazards of the community	X		Zoning/Code Enforcement/Admin	No	training	
	Personnel skilled in Geographical Information Systems (GIS) and / or FEMA's HAZUS program	X		Code Enforcement	Yes	training	Our current zoning officer knows GIS.
	Grant writers or fiscal staff to handle large / complex grants	X		Borough Engineer/ Borough Manager	Yes	training	Borough Engineer has grant writing capability.
	Other						
3. Financial Resources	Capital improvement programming						
	Community Development Block Grants (CDBG)	X		Administration	No		
	Special purposes taxes						
	Gas / Electricity utility fees						
	Water / Sewer fees	X		Borough Council / Water Authority	No		
	Stormwater utility fees						
	Development impact fees						
	General obligation, revenue, and / or special tax bonds						
	Partnering arrangements or intergovernmental agreements						
	Other						6

Capability Assessment - *continued*

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		Borough Manager	No		
	Public-private partnership initiatives addressing disaster related issues.						
	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.						
	Other						

Capability		Degree of Capability			Change since the 2018 Hazard Mitigation Plan? If so, how?	Additional Comments
		Limited	Moderate	High		
5. Self – Assessment	Planning and Regulatory	X				
	Administrative and Technical	X				
	Financial	X				
	Education and Outreach	X				

Known or Anticipated Future Development / Redevelopment

Development / Property Name	Type of Development	Number of Structures	Location	Known Hazard Zone	Description / Status
Main Street Commons	Commercial	1 at this time	200 West Main Street, Macungie		Development is still in planning stage.
Estates at Brookside	Residential	14	Willow Lane, Macungie		Development is in the construction phase.
Stone Hill Station	Residential	31	Spring Street, Macungie		Development is in the planning stage.

Natural & Non-Natural Event History Specific to Macungie Borough

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

2018 Municipal Action Plan Status

Existing Mitigation Action (from 2018 Hazard Mitigation Plan)		Status					Additional Comments
		No Progress / Unknown	In Progress	Continuous	Completed	Discontinued	
1	Stream bank stabilization.	X					The Borough will be performing streambank restoration along Mountain Creek as part of our MS4 Program.
2	Implement flood control projects as identified in the 2006 plan, specifically at the following locations: 150 Locust Street; 100, 138 and 140 W. Main Street; 50, 50 rear, 74-76 Race Street; 235 S. Walnut Street; 101 N. Church Street; 200 Cotton Street; 143 E. Main Street; 50 N. Poplar Street.				X		Norfolk Southern Railroad removed sediment from the Swabia Creek streambed at Rt. 100. Action carried through to the 2018 Action Plan.
3	Retrofit 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 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					Insufficient staffing to complete this project.
4	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	X					Insufficient staffing to complete this project.

2018 Municipal Action Plan Status - *continued*

Existing Mitigation Action (from 2018 Hazard Mitigation Plan)		Status					Additional Comments
		No Progress / Unknown	In Progress	Continuous	Completed	Discontinued	
	owners toward implementation of that action based on available funding from FEMA and local match availability.						
5	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			
6	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. Work with neighborhood associations, civic and business groups to disseminate information on flood insurance and the availability of mitigation grant funding.			X			
7	Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0.		X				

2018 Municipal Action Plan Status - *continued*

Existing Mitigation Action (from 2018 Hazard Mitigation Plan)		Status					Additional Comments
		No Progress / Unknown	In Progress	Continuous	Completed	Discontinued	
8	Complete the ongoing updates of the Comprehensive Emergency Management Plans.	X					No Emergency Management Coordinator
9	Create/enhance/maintain mutual aid agreements with neighboring communities for continuity of operations.			X			
10	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			
11	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 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		Regional 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
1	Stream bank stabilization.	20	Natural Systems Protection	Flood	Medium	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
2	Implement flood control projects as identified in the 2006 plan, specifically at the following locations: 150 Locust Street; 100, 138 and 140 W. Main Street; 50, 50 rear, 74-76 Race Street; 235 S. Walnut Street; 101 N. Church Street; 200 Cotton Street; 143 E. Main Street; 50 N. Poplar Street.	15	Structure & Infrastructure	Flood	Medium	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
3	Retrofit 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 retrofitting based on cost-effectiveness versus relocation.	1	Structure & Infrastructure	Flood	High	High	FEMA Mitigation Grant Programs and local budget (or property owner) for cost share	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from PEMA, FEMA	Long-term (depending on funding)	Existing

2023 Mitigation Action Plan - *continued*

Mitigation Action		Regional 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
	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.									
4	<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>	2	Structure & Infrastructure	Flood	High	High	FEMA Mitigation Grant Programs and local budget (or property owner) for cost share	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from PEMA, FEMA	Long-term (depending on funding)	Existing
5	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	3	Local plans & Regulations	Flood	High	Low - Medium	Municipal Budget	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from PEMA, ISO FEMA	Ongoing	New & Existing

2023 Mitigation Action Plan - continued

Mitigation Action		Regional 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
	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.									
6	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. Work with neighborhood associations, civic and business groups to disseminate information on flood insurance and the availability of mitigation grant funding.	4	Education & Awareness	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
7	Continue to support the implementation, monitoring, maintenance,	9	All Categories	All Hazards	High	Low – High (for 5-year update)	Municipal Budget, possibly FEMA	Municipality (via mitigation planning point of contacts)	Ongoing	New & Existing

2023 Mitigation Action Plan - *continued*

Mitigation Action		Regional 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
	and updating of this Plan, as defined in Section 7.0.						Mitigation Grant Funding for 5-year update	with support from Planning Partners (through their Points of Contact), PEMA		
8	Complete the ongoing updates of the Comprehensive Emergency Management Plans.	10	Local plans & Regulations	All Hazards	Medium	Low	Municipal Budget	Municipality with support from PEMA	Ongoing	New & Existing
9	Create/enhance/maintain mutual aid agreements with neighboring communities for continuity of operations.	11	All Categories	All Hazards	Medium	Low	Municipal Budget	Municipality with support from surrounding municipalities and County	Ongoing	New & Existing
10	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.	12	Education & Awareness	All Hazards	low	Medium	Municipal Budget	Municipality with support from County, PEMA, FEMA	Short-term	N/A
11	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	13	Education & Awareness	All Hazards	Medium	Medium	Municipal budget, FEMA HMA grant programs	Municipality with support from County, PEMA	Short-term (depending on funding)	N/A

2023 Mitigation Action Plan - *continued*

Mitigation Action	Regional 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
officials, floodplain managers, engineers).									

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