

Emmaus Borough, Lehigh County Annex

Hazard Mitigation Plan Points-of-Contact

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Municipal Profile

Emmaus Borough is located in the southern part of Lehigh County. It encompasses a land area of 2.9 square miles and has a population of 11,652 (2020 Census). The borough is bordered by Upper Milford Township to the south; Lower Macungie Township to the west; Salisbury Township and Allentown to the north; and Upper Saucon Township to the east.

Leibert Creek, a tributary to Little Lehigh Creek, runs through the western part of the borough, and another unnamed creek runs north through the eastern part of the borough. A small dam and stocked fishing pond are located in the southwestern area of the borough at Furnace Dam recreation area.

State Route 476 / PA Turnpike cuts through the southwest corner of the borough. Route 329 runs southwest-northeast as Chestnut Street, Main Street, and State Avenue through the borough, changing to north-northeast direction as Lehigh Street as it exits the northeastern part of the borough. Harrison Street also runs southwest-northeast through the borough, intersecting with SR 29 (State Avenue) just east of the Norfolk Southern Railroad tracks. Both the Norfolk Southern and East Penn Railroad run through 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.

James Krippe, Emergency Management Coordinator Role: Coordinates EMA function	Shane Pope, Borough Manager Role: Oversight of the entire planning process
Brad Youst, Hanover Engineering, Engineer Role: All engineering and floodplain management	John Dychala, Public Works Director Role: Planning, Infrastructure, Resources
James Farnsworth, Planner Role: Zoning, planning, codes, inspection	John Price, Director of Emergency Services Role: Ambulance and fire services

**please update table as needed*

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.

East Penn School District – houses over 2,800 students every day in schools. Need to be part of planning process for evacuation, transportation and other reasons.

Emmaus Main Street Partners – local business organization

Emmaus Board of Health – inspectors

Local churches – provide resources and shelters

Lehigh County Housing Authority – own several housing units and serve as a resource

3. Describe how the public **will be engaged** in the current planning process (examples, newsletters, social media, etc.), **and how they were engaged** since the 2018 Hazard Mitigation Plan.

Current: Borough quarterly newsletters

Social Media – Borough Facebook page

Borough 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	No
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Codes Enforcement reviews and approves permits.
What are the barriers to running an effective NFIP program in the community, if any?	Community FPA	Flooding is not a high hazard in the community.
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	Unknown
Are the Flood Insurance Rate Maps (FIRMs) digital or paper?	Community FPA	Paper – distributed to residents in areas, especially when conducting construction projects or building.

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

Topic	Identify source of information, if different from the one listed.	Additional Comments
How are residents assisted with mapping?		
Do floodplain regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	Yes – follow all state and federal regulations.
Describe the permitting process	Community FPA, State, FEMA NFIP	Building permits – apply through codes enforcement, also reviewed by Lehigh County Conversation District and PA DEP.
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	25 unknown
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	None; \$0
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	103 parcels
Describe any areas of flood risk with limited NFIP policy coverage	Community FPA or FEMA Insurance Specialist	Unknown
5. Community Rating System (CRS)		
Does the community participate in CRS?	Community FPA, State, or FEMA NFIP	No
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual (http://www.fema.gov/floodinsurancemanual.gov)	N/A
What categories and activities provide CRS points and how can the Class be improved?		N/A
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, or ISO representative	N/A

Community Assets

Community assets are defined to include anything that is important to the character as well as the function of a community, and can be described in four categories, they are; people, economy, natural environment and built environment. Please identify the community assets and locations 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.

School-aged children – schools house nearly 3,000 students per day in the Borough. Schools include Seven Generations, St. Ann's Elementary, Emmaus High School, Lincoln Elementary and Jefferson Elementary.

Community Assets - *continued*

Elderly – several assisted living facilities in the Borough, including Ridge Manor, South Mountain Memory Care, Weston Senior Living, and East Penn High Rises Mentally handicapped – group home.

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

Emmaus High School – population each day over 2,000. In addition, football fields and other athletic venues at the school.

Emmaus Community Park – location of swimming pool, athletic facilities including football and baseball fields, pavilions, and other facilities drawing large numbers of people.

Williams Street Playground – houses athletic fields where many tournaments occur.

Triangle Park – large downtown celebrations and gatherings

2. Economy

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

Cintas

CVIP

Strip malls on both sides of Chestnut Street

East Penn School District

Impress Packaging

East Penn Commerce Center

Vinart

Downtown business district

Rodale facility (formerly owned by Rodale) – new prospective buyer has a potential for many jobs

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.

Leibert's Creek

Little Lehigh Creek

South Mountain

Community Assets - *continued*

4. Built Environment

- Existing structures such as, concentrations of buildings that may be more vulnerable to hazards based on location, age, construction type and / or condition of use.

Downtown business district
Older buildings along railroad tracks

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

Sewer lines
Water wells
PPL substation – located on Furnace Street
Communications repeater towers – town hall and central station, as well as on the high rises and Meineke Muffler

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

Furnace Dam

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

Emmaus Police Station
Town Hall
Jefferson Elementary
Lincoln Elementary
Emmaus High School
Seven Generations Charter School
St. Ann's Elementary School
Fire Department Training Grounds/EMA headquarters
Central Station – houses fire and ambulance
Lehigh Valley Physicians Group, 1040 Chestnut Street
East Penn Urgent Care, 1003 Chestnut Street
Dr. Barnes, 723 Chestnut Street
St. Luke's Medical, 619 Dalton Street

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

1803 House
Shelter House
Knauss Homestead
Historical Society
Emmaus Community Park
Williams Street Playground
Boroline Park
4th Street Park
Lions Field and 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	12/18/17		Multi-jurisdictional					
	Capital Improvement Plan									
	Economic Development Plan									
	Continuity of Operations Plan									
	Stormwater Management Plan / Ordinance	X								
	Open Space Management Plan (or Parks/Rec., Greenways Plan)	X								
	Natural Resource Protection Plan	X								
	Transportation Plan									
	Historic Preservation Plan									
	Floodplain Management Plan									
	Farmland Preservation									
	Evacuation Plan									
	Disaster Recovery Plan									
	Hazard Mitigation Plan	X	2018							
	Emergency Operations Plan	X								
	Zoning Regulations	X								
	Floodplain Regulations	X								
	NFIP Participation									
	Building Code	X								
	Fire Code	X								
	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		Zoning			
	Planners or engineers (with natural and / or human-caused hazards knowledge)	X		Hanover Engineering			
	Engineers or professionals trained in building and / or infrastructure construction practices (including building inspectors)	X		Hanover Engineering			
	Emergency Manager	X		Emergency Management Agency Coordinator			
	Floodplain administrator / manager	X		Hanover Engineering			
	Land surveyors	X		Hanover Engineering			
	Staff familiar with the hazards of the community	X		All departments			
	Personnel skilled in Geographical Information Systems (GIS) and / or FEMA's HAZUS program	X		Administration and Hanover Engineering			
	Grant writers or fiscal staff to handle large / complex grants	X		Administration			
	Other						
3. Financial Resources	Capital improvement programming	X		Administration			
	Community Development Block Grants (CDBG)	X		Administration			
	Special purposes taxes	X		Administration			
	Gas / Electricity utility fees						
	Water / Sewer fees	X		Administration			
	Stormwater utility fees						
	Development impact fees						
	General obligation, revenue, and / or special tax bonds	X		Administration			
	Partnering arrangements or intergovernmental agreements	X		Administration			
	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
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		All Departments			
	Public-private partnership initiatives addressing disaster related issues.	X					
	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	X					
	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
Fields at Indian Creek	Residential 55+	50	Indian Creek Golf Course	Creek/1-476	Entire project includes 200+ houses spread over 2 communities
Wawa	Commercial	1	Cedar Crest Boulevard/S 11 th Street	Creek	Gas station/convenience store
South Mountain Village	Residential 55+	40	PA Avenue/Tilghman/Arch Streets	Railroad	Housing development
Borough Administration Building	Institutional	1	33 E Minor Street	Railroad	58,000 sq ft. relocation of major borough operations

Natural & Non-Natural Event History Specific to Emmaus 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	\$51,587.55 in FEMA-approved costs
Flash Flooding – February 2016	N/A	Flooded and caused damage to Emmaus Community Pool, concession stand, bathhouse, and workshop areas. Total damage – approximately \$18,000
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	Implement stormwater management projects to alleviate street flooding.		X	X			The Borough is in the process of additional strategic planning to address this. In addition, we have conducted several stream bank restoration projects, as well as pipe repairs, grate repairs, and pipe camera work.
2	Work with local electric utility to improve utility line clearing.				X		PPL built 2 new lines into the community to deal with severe storms and power outages. Action carried through to 2018 Action Plan.
3	Maintain adequate fleet of vehicles and equipment to handle emergency response.			X			
4	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			
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. 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	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	
action based on available funding from FEMA and local match availability.						
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.			X			
7 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: - 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. - Work with neighborhood associations, civic and business groups to disseminate information on flood insurance and the availability of mitigation grant funding.			X			
8 Obtain and archive elevation certificates for NFIP compliance.			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	
9	Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0.			X			
10	Complete the ongoing updates of the Comprehensive Emergency Management Plans.			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	Implement stormwater management projects to alleviate street flooding.	14	Structure and Infrastructure	Flood	Medium	High	Borough Budget	Engineering/ Public Works	Long-term (depending upon funding)	Existing
2	Work with local electric utility to improve utility line clearing.	21	Structure and Infrastructure	Windstorm/ Tornado, Winter Storm, Utility Interruption	High	Medium	Borough Budget	Borough working with electric utilities	Short-term	Existing
3	Maintain adequate fleet of vehicles and equipment to handle emergency response.	19	Structure and Infrastructure	All	High	Medium	Borough Budget; public protection and emergency services grant programs	Borough	Ongoing	N/A
4	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	1	Structure & Infrastructure	Flood, Windstorm/ Tornado, Winter Storm, Earthquake	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 upon 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
	with property owners toward implementation of that action based on available funding from FEMA and local match availability.									
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. 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.	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 upon funding)	Existing
6	Maintain compliance with and good-standing in the NFIP including adoption and enforcement of floodplain management	3	Local plans & regulations	Flood	High	Low-medium	Local Budget	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from PEMA,	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
	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.							ISO FEMA		
7	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: Prepare and distribute informational letters to flood vulnerable property owners and neighborhood associations, explaining the availability of mitigation grant	4	Education & Awareness	All Hazards	High	Low-Medium	Municipal Budget	Municipality with support from Planning Partners, PEMA, FEMA	Short-term	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
	funding to mitigate their properties, and instructing them on how they can learn more and implement mitigation. Work with neighborhood associations, civic and business groups to disseminate information on flood insurance and the availability of mitigation grant funding.									
8	Obtain and archive elevation certificates for NFIP compliance.	8	Local plans & Regulations	Flood	Low	Low	Local Budget	NFIP Floodplain Administrator	Ongoing	N/A
9	Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0	9	All Categories	All Hazards	High	Low-High (for 5-year update)	Local 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
10	Complete the ongoing updates of the Comprehensive Emergency Management Plans	10	Local plans & Regulations	All Hazards	Medium	Low	Local Budget	Municipality with support from PEMA	Ongoing	New & Existing
11	Work with regional agencies (i.e. County and PEMA) to help	13	Education and Awareness	All Hazards	Medium	Medium	Local budget, FEMA	Municipality with support	Short-, long-term (depending upon 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
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).						HMA grant programs	from County, PEMA		

Notes:

Estimated Costs:

- Where actual project costs have been reasonably 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