

South Whitehall, Lehigh County Annex

Hazard Mitigation Plan Points-of-Contact

Primary:

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Alternate:

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Municipal Profile

South Whitehall is a suburban township located in Lehigh County. It covers a land area of 17.2 square miles and has a population of 21,080 (2020 Census). The township is bordered by North Whitehall Township to the north; Whitehall Township to the northeast; Allentown to the east and southeast; Salisbury Township and Lower Macungie Township to the south; and Upper Macungie Township to the west.

South Whitehall Township is drained by Cedar Creek, running east through the southern part of the township, and by Jordan Creek, flowing east from the northwest corner of the township to the eastern border into Whitehall Township. Both of these creeks empty into the Lehigh River.

South Whitehall is home to the Lehigh Valley Interchange of Interstate 476 and U.S. Route 22 in the western part of the township, and to the Northeast Extension of the PA Turnpike. Route 309 also travels north-south, paralleling Route 476 through the western part of the township, and crossing that same route midway through the area. Cedar Crest Boulevard (SR 1019) is a primary local arterial, running north-south in the eastern part of the township, and Mauch Chunk Road (SR 1017), which runs northwest-southeast from Allentown to the northern part of South Whitehall Township. Other significant local east-west thoroughfares are Walbert Avenue (SR 1006), north of US 22, and Tilghman Street (SR 1002) south of US 22. US Route 22 also cuts east-west through the southern-most section of the township, connecting Lower Macungie, South Whitehall, and Allentown. The township is also crossed southeast northwest by a section of the Norfolk Southern rail line.

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 G. Frantz, Fire Marshal
Role: Coordinate information, EMA

Thomas Petrucci, Floodplain
Administrator
Role: Responsible for floodplain
administration

Jeff Kelly, Emergency Management
Coordinator
Role: Responsible for Emergency
Management (EMA) related activities

Ricardo Diaz, Fire Chief, Cetronia Fire
Company
Role: Fire operations

The Pidcock Company, Township Engineer
Role: Responsible for engineering activities

Thomas Petrucci, Township Manager
Role: Responsible for overall Township operations

Dave Manhardt, Manager, Community Development
Role: Responsible for planning activities

Brian Neas, Chief, Tri-Clover Fire Company
Role: Fire operations

Barry Search, Fire Chief, Woodlawn Fire Department
Role: Fire operations

Glen Dorney, Chief of Police
Role: Law Enforcement, Assist with EMA activities

Andrew Garger, Fire Chief, Greenawalds Fire Department
Role: Fire operations

Herb Bender, Director of Operations – Public Works Department
Role: Responsible for water and sewer systems

Robert Mateff, Chief Executive Officer, Cetronia Ambulance Corps
Role: Emergency medical service

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.

Red Cross – Disaster Services
Lehigh Valley Health Network – Healthcare
St. Luke's Health Network – Healthcare
Parkland School District – school safety and transportation management
Cedar Fair (Dorney Park) – park safety and public vehicle access
Cedarbrook Nursing Home – health care

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

Current: Emergency management and disaster preparedness/recovery information has been disseminated to the public at specifically planned public events. South Whitehall Township police disseminate information via Facebook and at planned public events.
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

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

Topic	Identify source of information, if different from the one listed.	Additional Comments
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Permit Review, GIS, Education (through website and availability of resources), records, and archiving.
What are the barriers to running an effective NFIP program in the community, if any?	Community FPA	N/A
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)?		Community Assistance Visit on September 23 rd , 2014
Is a CAV or CAC scheduled or needed?		No
3. Regulation		
When did the community enter the NFIP?	NFIP Community Status Book	5/19/1977
Are the Flood Insurance Rate Maps (FIRMs) digital or paper? How are residents assisted with mapping?	Community FPA	Both. Floodplain Coordinator is available for questions.
Do floodplain regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	Exceeds. See information under this worksheet.
Describe the permitting process	Community FPA, State, FEMA NFIP	Permit is received. Reviewed for completeness. Accepted. Reviewed by Floodplain Coordinator. Forwarded to Township Engineer for further review, if necessary. Approved or Denied, as applicable. Issued, if applicable.
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	51 policies. Total Premiums: \$74,999.00 Total Coverage: \$12,223,400.00
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	Total Number of Closed Paid Losses: 46 Total Amount of Closed Paid Losses: \$346,928.00 Total Substantial Damage Claims Paid: 3
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	Estimated approximately 200 structures
Describe any areas of flood risk with limited NFIP policy coverage	Community FPA or FEMA Insurance Specialist	King George Inn area

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

Topic	Identify source of information, if different from the one listed.	Additional Comments
5. Community Rating System (CRS)		
Does the community participate in CRS?	Community FPA, State, or FEMA NFIP	No
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual (http://www.fema.gov/floodinsurancemanual.gov)	N/A
What categories and activities provide CRS points and how can the Class be improved?		N/A
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, or ISO representative	N/A

Community Assets

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

1. People

- Concentrations of vulnerable populations such as the elderly, physically or mentally disabled, non-English speaking, and the medically or chemically dependent.

Cedarbrook County Home (Nursing Home)

Luthercrest Retirement Community (Nursing Home)

Lehigh Valley Health Network Tilghman (short-stay surgery)

Lehigh Valley Health Network (Coordinated Health) Allentown (short-stay surgery)

Fresenius Kidney Care Center (in-patient dialysis)

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

Jewish Day School

Datzyk Montessori School

St. Joseph the Worker School

Dorney Park and Wildwater Kingdom (Amusement Park)

Parkland School District – Parkland High School, Orefield Middle School,

Springhouse Middle, Kratzer Elementary School, Cetronia Elementary

School, Parkway Manor Elementary School, Parkland School District

Stadium

2. Economy

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

Dorney Park and Wildwater Kingdom

Nestle Purnia Pet Care

PPL Electric Utilities Lehigh Service Center

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.

Protection of floodplain and floodway

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.

None

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

Aqua Pennsylvania Water Facilities

PPL Electric Utilities Substation

Lehigh County Authority Water Facilities

Norfolk Southern – C&F Secondary

Cellular Towers (numerous)

PJM Interconnection – 500 KV Transmission Line

Pennsylvania Turnpike Commission – Northeast Extension / I-

476 Pennsylvania Department of Transportation – US Route 22

LANTA – Public Transportation

Buckeye Partners also Energy Partners – Pipelines (2)

South Whitehall Township Water Facilities – Storage _ Water Tower,

Huckleberry Reservoir, Control – Auto Con Production Wells – K-Mart,

Luthercrest, Dorney, Cornerstone, Cedarbrook and others.

Booster/Chlorination – Springhouse West, Winchester Heights, Pheasant Hill, Winchester West, and other locations.

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

GEO Specialty Chemicals

Nestle Purina Pet Care

Ach Street Dam

Community Assets - *continued*

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

Lehigh Valley Health Network Tilghman
Fresenius Kidney Care Center
St. Joseph the Worker School
Datzyk Montessori School
Lehigh Valley Health Network (Coordinated Health)
St. Luke's Health System
South Whitehall Township Police Department
Jewish Day School
Cetronia Fire Company Fire Company, Greenawalds Fire Company,
Woodlawn Fire Department
Joint Operations Center – Cetronia Ambulance Corps/Lehigh County
Special Operations and Coroner/South Whitehall Township EOC
Parkland School District – Parkland High School, Orefield Middle School,
Springhouse Middle School, Kratzer Elementary School, Parkway Manor
Elementary School

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

Lehigh County Soccer Field
Parkland School District Stadium
Sieger's Covered Bridge
Peter Troxell House
Romig's Mill
Iron Bridge
Blumer House
South Whitehall Township Covered Bridge Park
Guth's Covered Bridge
Dorney Crossroads Settlement
Lime Kilns (multiple)
Guth House
Daniel Troxell House and Blacksmith Shop

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	3/15/23		Township, LVPC	S	Yes			
	Capital Improvement Plan									
	Economic Development Plan									
	Continuity of Operations Plan	X	4/20/16		Township	S	No			Functional checklist & logistics contained in Emergency Operations Plan
	Stormwater Management Plan / Ordinance	X	4/18/07		Township	S	No			
	Open Space Management Plan (or Parks/Rec., Greenways Plan)	X	11/4/09		Township	S	No			
	Natural Resource Protection Plan									
	Transportation Plan									
	Historic Preservation Plan									
	Floodplain Management Plan	X	4/15/15		Township Community Development Department	S				
	Farmland Preservation									
	Evacuation Plan	X	4/20/16			S				Site specific plans listed in Appendix C of Emergency Operations Plan
	Disaster Recovery Plan	X	N/A			S				

Capability Assessment - *continued*

Capability	✓ Regulatory ✓ Tools ✓ Programs	Status			Department / Agency Responsible	Effect on Hazard Loss Reduction: - <u>S</u> upports -Neutral - <u>H</u> inders	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						
	Hazard Mitigation Plan	X	2021		Township	S				Site specific emergency plan referenced in Emergency Operations Plan, floodplain regulations and zoning ordinance regulations
	Emergency Operations Plan	X	1/2023		Township	S				
	Zoning Regulations	X	9/1/20		Township Community Development Department	S				
	Floodplain Regulations	X	4/15/15		Township Community Development Department	S				
	NFIP Participation	X	12/7/16		Township	S				Date indicates Adoption of re-codified Township Ordinances. Floodplain Ordinance adopted 4/15/2015.
	Building Code	X	2/14/22		Township Community Development Department	S				2018 IBC/IRC

Capability Assessment - continued

Capability	✓ Regulatory ✓ Tools ✓ Programs	Status			Department / Agency Responsible	Effect on Hazard Loss Reduction: - <u>S</u> upports -Neutral - <u>H</u> inders	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						
	Fire Code	X	11/16/22		Township Community Development Department	S				2018 IFC
	Other	X	6/15/22		Township Community Development Department					2018 IPMC

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
3. Financial Resources	Capital improvement programming	X		Township Staff	No		
	Community Development Block Grants (CDBG)	X		Human Services.	No		
	Special purposes taxes	X		Township Finance Department	Yes		Fire Service Tax
	Gas / Electricity utility fees		X	.	No		
	Water / Sewer fees	X		Township Finance Department	No		
	Stormwater utility fees	X		Township Community Development Department	No		
	Development impact fees	X		Township Finance Department	No		
	General obligation, revenue, and / or special tax bonds	X		Township Finance Department	No		
	Partnering arrangements or intergovernmental agreements	X		Township Community Development Department/Police and Fire	No		
	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		X				
	StormReady Certification	X		Lehigh County Emergency Management Agency			
	Natural disaster or safety-related school programs	X		Township			
	Ongoing public education or information programs such as, responsible water use, fire safety, household preparedness, and environmental education.	X		Township			
	Public-private partnership initiatives addressing disaster related issues.	X		Township, Parkland School District, Dorney Park			
	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	X		Township			
	Other						

Capability Assessment - *continued*

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
Blue Barn Meadows (2002-114)	Residential	213 Townhomes	1400 Block of Blue Barn Road	Karst Geology	Under Construction
Estates at Pheasant Hills II (2006-101)	Residential	12 Singles	Orefield Road at Ritter Road	Karst Geology	Under Construction
Cedarpointe 1641 North Cedar Crest Boulevard (2007-101)	Commercial	Construct a four-story 91,200 ft² office building	1641 North Cedar Crest Boulevard	Karst Geology	Phase 1 (parking) completed, Phase 2 (building) not started
The Hills at Winchester (2011-103)	Mixed-use – Residential/Commercial	43 singles, 118 over-55 singles, 88 over-55 twins, 1 restaurant	3951 Walbert Avenue	Karst Geology	Under Construction
KRE/Springview (2012-103)	Mixed-use – Residential/Commercial	3 commercial pads, ten 45-unit apartment buildings, 1 clubhouse	500 Block of Cetronia Road	Karst Geology	Under Construction
Rhue Subdivision (2013-201)	Residential	4 singles	2400 Block of Huckleberry Road	Karst Geology	Under Review
30 West Twins (2015-103)	Residential	16 twins	3000 Block of Washington Street	Karst Geology	Under Construction
Tilghman Square Shopping Center Improvements (2015-106)	Commercial	1 commercial pad, 3 tenants	4600 Block of Broadway	Karst Geology	Complete
Hotel Hamilton (2015-107)	Commercial	2 commercial pads, 1 hotel	Northeast corner of Hamilton Boulevard and North Cedar crest Boulevard	Karst Geology	Under Review
Hamilton Animal Care (2016-102)	Commercial	1 commercial pad	4500 Block of Tilghman Street	Karst Geology	Under Construction

Known or Anticipated Future Development / Redevelopment - *continued*

Development / Property Name	Type of Development	Number of Structures	Location	Known Hazard Zone	Description / Status
St. George's Orthodox Church (2016-106)	Institutional	6 new buildings	Southwest corner of Orefield Road and North Cedar Crest Boulevard	Karst Geology	Under Review
Ridge Farm (2017-101)	Mixed-use – residential/commercial	80 singles, 124 twins, 350 apartment units, 70 over-55 singles, 120 over-55 twins, 6 commercial pads, 3 clubhouses	North Cedar Crest Boulevard and Walbert Avenue	Karst Geology	Under Review and Construction
Dorney Park Project 2018 (2017-102)	Commercial	Replacement of existing building	3830 Dorney Park Road	Karst Geology	Under Construction

Natural & Non-Natural Event History Specific to South Whitehall Township

Type of Event and Date(s)	FEMA Disaster # (if applicable)	Local Damage(s) or Loss(es)
Winter Storm Stella – 3/2017	N/A	N/A
Winter Storm Jonas – 1/2016	DR-4267-PA	Snowstorm
Pennsylvania COVID-19 Pandemic – 1/2020	DR-4506-PA	Emergency Protective measures to combat COVID-19 Pandemic.
Tropical Storm Isaias – 8/2020	N/A	Flooding
Tropical Storm Ida – 9/2021	DR-4618	Flooding

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	Flooding Cedar Crest and Hamilton; Major route to area Trauma Center LVHN.	X					Awaiting pending adjacent property development
2	Flood control - roadway flooding: Cedar Crest Blvd (0-100) & Broadway Rd (3100- 3300)/				X		City of Allentown/PENNDOT
3	Roadway flooding: Glick Ave. and Birch Ave.	X					Township Public Works
4	Storm drainage improvements: Crackersport Rd. between Country Lane & Bulldog Dr.	X					Township Public Works
5	Storm drainage improvements: Broadway Rd. and Schaeffer St.				X		Township Public Works
6	Retrofit structures located in hazard prone areas to protect structures from future damage, with 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					
7	Purchase, or relocate structures located in hazard-prone areas to protect structures from future damage, with repetitive loss properties as priority. Phase 1: Identify appropriate candidates for relocation based on cost-effectiveness versus retrofitting.	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	
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.						
8 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			
9 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			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	
	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.						
10	Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0.			X			
11	Complete the ongoing updates of the Comprehensive Emergency Management Plans.			X			
12	Create/enhance/maintain mutual aid agreements with neighboring communities for continuity of operations.			X			
13	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			Through Lehigh County Emergency Management Agency and Local Emergency Management Agency
14	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			Through Lehigh County Emergency Management Agency and Local Emergency Management Agency. Continuing education programs

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	
15	Develop preparedness and response to active-aggressor incidents.			X			
16	Address utility interruption of critical infrastructure. Provide permanent generators and portable generator connections at water stations.			X			
17	Coordinate with and support the Lehigh County Emergency Management Agency and PA Department of Health for setting up points of distribution and providers for immunizations.			X			
18	Assist with dissemination of information concerning pandemic and infectious diseases.			X			
19	Assist in dissemination of information to residents regarding how to prevent the spread of invasive species.			X			
20	Maintain and enforce property maintenance ordinances regarding junk items that can serve as breeding areas for invasive insects.			X			
21	Train and equip first responders with overdose-counteracting medication.			X			
22	Continue DARE program in elementary and middle schools.			X			
23	Continue support of intervention programs to address overdose reoccurrence.			X			
24	Continue support of prescription take-back program.			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		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	Flooding Cedar Crest and Hamilton. Major route to area Trauma Center LVHN	Structure & Infrastructure	Flood	High	High		PENNDOT		Existing
2	Roadway flooding: Glick Ave. and Birch Ave.	Structure & Infrastructure	Flood	Medium	High		Township Public Works	Depending on funding	Existing
3	Storm drainage improvements: Crackersport Rd. between Country Lane & Bulldog Dr.	Structure & Infrastructure	Flood	Medium	High		Township Public Works	Depending on funding	Existing
4	Retrofit structures located in hazard prone areas to protect structures from future damage, with 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.	Structure & Infrastructure	Flood, Windstorm / Tornado, Winter Storm, Earthquake	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

2023 Mitigation Action Plan - *continued*

5	Purchase, or relocate structures located in hazard-prone areas to protect structures from future damage, with 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.	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
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	Local plans & Regulations	Flood, Windstorm / Tornado, Winter Storm	High	Low - Medium	Local Budget	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from PEMA, ISO FEMA	Ongoing	New & Existing

2023 Mitigation Action Plan - *continued*

	compliance actions identified below.								
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: 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</p>	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

	neighborhood associations, civic and business groups to disseminate information on flood insurance and the availability of mitigation grant funding.								
8	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)	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
9	Complete the ongoing updates of the Comprehensive Emergency Management Plans	Local plans & Regulations	All Hazards	High	Low	Local Budget	Municipality with support from PEMA	Ongoing	New & Existing
10	Create/enhance/maintain mutual aid agreements with neighboring communities for continuity of operations.	All Categories	All Hazards	High	Low	Local Budget	Municipality with support from surrounding municipalities and County	Ongoing	New & Existing
11	Develop and maintain capabilities to process FEMA/PEMA paperwork after disasters; qualified damage assessment personnel – Improve post-disaster capabilities – damage assessment;	Education & Awareness	All Hazards	Medium	Medium	Local budget	Municipality with support from County, PEMA, FEMA	Short-term	N/A

2023 Mitigation Action Plan - continued

	FEMA/PEMA paperwork compilation, submissions, record keeping.								
12	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	Local budget, FEMA HMA grant programs	Municipality with support from County, PEMA	Short-, long-term (depending on funding)	N/A
13	Develop preparedness and response to active-aggressor incidents	Local plans & Regulations	Mass Gathering / Civil Disturbance	High	High	Federal and State grants, Municipal budget	Township and Lehigh County Emergency Management	Immediate/ongoing	N/A
14	Address utility interruption of critical infrastructure. Provide permanent generators and portable generator connections at water stations.	Structure & Infrastructure	Multiple Natural Hazards; Utility Interruption	High	High	Municipal Budget	Township	Immediate/ongoing	Existing
15	Coordinate with and support the Lehigh County Emergency Management Agency and PA Department of Health for setting up points of distribution and providers for immunizations.	Local plans & Regulations	Pandemic and Infectious Disease	Medium	Low	Municipal Budget	Municipality, working with County EMA and PA Department of Health	Ongoing	N/A
16	Assist with dissemination of information concerning	Education & Awareness	Pandemic and Infectious Disease	Medium	Low	Municipal Budget	Municipality	Ongoing	N/A

2023 Mitigation Action Plan - continued

	pandemic and infectious diseases.								
17	Assist in dissemination of information to residents regarding how to prevent the spread of invasive species.	Education & Awareness	Invasive Species	High	Low	Municipal Budget	Municipality	Ongoing	N/A
18	Maintain and enforce property maintenance ordinances regarding junk items that can serve as breeding areas for invasive insects.	Education & Awareness	Invasive Species	High	Low	Municipal Budget	Municipality	Short-term	N/A
19	Train and equip first responders with overdose-countering medication.	Local plans & Regulations	Drug Overdose Crisis	High	Low	Municipal Budget	Municipality	Ongoing	N/A
20	Continue DARE program in elementary and middle schools.	Education & Awareness	Drug Overdose Crisis	High	Low	Municipal Budget	Municipality	Ongoing	N/A
21	Continue support of intervention programs to address overdose reoccurrence.	Education & Awareness	Drug Overdose Crisis	High	Low	Municipal Budget	Municipality	Ongoing	N/A
22	Continue support of prescription take-back program.	Education & Awareness	Drug Overdose Crisis	High	Low	Municipal Budget	Municipality	Ongoing	N/A
23	Storm drainage improvements, Winchester Road area east of Manchester Road including neighborhood between Leicester Place and N. 33 rd Street.	Structure & Infrastructure	Flood	High	High	FEMA Mitigation Grant Programs and local budget (or property owner) for cost share	Municipality (via Municipal Engineer/NFI P Floodplain Administrator) with support from PEMA, FEMA	Long-term (depending on funding)	Existing

Notes:

Estimated Costs:

- Where actual project costs have been reasonable estimated: Low = < \$10,000; Medium = \$10,000 to \$100,000; High = > \$100,000;
- Where actual project costs cannot reasonably be established at this time:
 - Low** = Possible to fund under existing budget. Project is part of, or can be part of an existing on-going program.
 - Medium** = Could budget for under existing work plan, but would require a reapportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.
 - High** = Would require an increase in revenue via an alternative source (i.e., bonds, grants, fee increases) to implement. Existing funding levels are not adequate to cover the costs of the proposed project.

Potential Funding (FEMA HMA):

- **BRIC** = Building Resilient Infrastructure and Communities
- **FMA** = Flood Mitigation Assistance Grant Program
- **HMGP** = Hazard Mitigation Grant Program
- **HSGP** = Homeland Security Grant Program
- **EMPG** = Emergency Management Performance Grant

Implementation Schedule:

- **Short Term** = 1 to 5 years
- **Long Term** = 5 years or greater
- **DOF** = Depending on Funding

Applies to New and/or Existing Structures:

- **N/A** = Not Applicable

