**Palmer Township, Northampton County Annex**

**Hazard Mitigation Plan Points-of-Contact**

|  |  |
| --- | --- |
| **Primary:** | **Alternate:** |
| Stephen GallagherFire Commissioner / Emergency Management Coordinator 3 Weller Place, Palmer, PA 18045610-559-9809sgallagher@palmertwp.com | Kent BairdDirector of Planning3 Weller Place, Palmer, PA 18045610-253-7191kbaird@palmertwp.com |

**Municipal Profile**

Palmer Township is a suburban township located in the central-east portion of Northampton County. It encompasses an area of 10.7 square miles and has an approximate population of 22,317 (2020 Census). The township is bordered by Wilson Borough and Forks Township to the east, Tatamy Borough to the northeast, Stockertown Borough to the north, Upper Nazareth Township to the northwest, Lower Nazareth Township and Bethlehem Township to the west, and the City of Easton to the south.

The Lehigh River is the township’s southern border, and the Bushkill Creek forms the township’s eastern border from Stockertown in the north, south to Wilson Borough, with the exception of where the township borders Tatamy Borough. The Schoeneck Creek also traverses the northern portion of the Township. Flooding has been a problem along the Bushkill and Schoeneck Creeks during significant storm events. Sinkholes have also been an issue in the Township, particularly in the North End, due to Karst geology.

US Route 22 enters the township from Bethlehem Township and travels east-west across the township and into Wilson Borough. PA Route 33 enters the township along the northern border with Stockertown Borough and travels southwest, exiting into Lower Nazareth Township just north of PA Route 248 (Nazareth Road). PA Route 248 travels southeast from the border with Lower Nazareth Township to where it interchanges with US Route 22 just west of Wilson Borough, where PA Route 248 continues into the borough as Northampton Street.

Lehigh Valley International Airport is located 15 miles west of Palmer Township in Hanover Township, serving as the Township’s primary airport.

**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.

|  |  |
| --- | --- |
| Stephen Gallagher, Fire Commissioner/Emergency Management CoordinatorRole: Emergency Management Coordinator | Kent Baird, Director of PlanningRole: planning |
| Robert Williams, Township ManagerRole: Administration | James Raudenbush, Zoning OfficerRole: Zoning Administrator/Former Floodplain Administrator |
| Scott Kistler, Director of Public WorksRole: Public Works | Craig Beavers, Assistant Director of PlanningRole: Planning/Floodplain Administrator |
| Paige Strasko, MS4/Environmental AdministratorRole: Public Services | Philip Goudbout, Director of Public ServicesRole: Public Service |
| Thomas Adams, Director of Public ServicesRole: Public Services |

*\*please update table as needed*

1. 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.

Planning Commission, Environmental Steering Committee, and Board of Supervisors will hold discussions. Planning, Codes, Public Services, Public Works, Fire, Police, and Parks Departments will be informed and involved. Notification will be sent to: major developers/landowners, major businesses, Business, Industrial, and Professional Association of Palmer Township

1. 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: Propose to engage stakeholders through: social media, communication with stakeholders, city website, announcements with newsletters, outreach through the city emergency alerts service NIXLE, and public meetings.

 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 | Yes, the Assistant Planning Director is a CFM |
| Is floodplain management an auxiliary function? | Community FPA | No |
| Provide an explanation of NFIP administration services (e.g., permit review, GGIS, education or outreach, inspections, engineering capability) | Community FPA | The Planning and Codes Departments administrator all aspects of the NFIP program, including permit review, GIS, education/outreach, & inspections |
| 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)? |  | Unknown |
| Is a CAV or CAC scheduled or needed? |  | Yes |
| **3. Regulation** |
| When did the community enter the NFIP? | NFIP Community Status Book | 12/28/1976 |
| Are the Flood Insurance Rate Maps (FIRMs) digital or paper? How are residents assisted with mapping? | Community FPA | Both, Residents are helped in person or via email |
| Do floodplain regulations meet or exceed FEMA or State minimum requirements? If so, in what ways? | Community FPA | Regulations meet or exceed FEMA requirements; additional foot of freeboard, ban on fill in the floodplain |
| Describe the permitting process | Community FPA, State, FEMA NFIP | A Floodplain Development Permit is required for any work within the SFHA, reviewed for conformance with the floodplain requirements. |
| **4. Insurance Summary** |
| How many NFIP policies are in the community?What is the total premium and coverage? | State NFIP Coordinator orFEMA NFIP Specialist | 53 policies, $63,158 |
| 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 | 28 claims; $503,852; 7 rep loss claims |
| How many structures are exposed to flood risk within the community? | Community FPA or GIS Analyst | 165 |
| 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 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.

Grandview Apartments

Easton Skilled Nursing Center (2600 Northampton Street)

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

Palmer Community Day Event – annually in August at Fairview Park

Easton High School Bonfire Special Event – annually; day before Thanksgiving Charles Chrin Community Center in Palmer Township

Palmer Park Mall St. Janes Church

Easton Area High School Palmer Elementary School Tracy Elementary School Easton Area Academy

Multiple township wide athletic fields

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

 Amazon Fulfillment Center

 XPO Logistics

 Majestic Athletic

 HCR Manor Care

 Raub’s Farm

 UPS

 Township Government

 25th Street Shopping Center

 Palmer Town Center – Giant, Home Depot

 William Penn Plaza

 MCS Industries

 Palmer Park Mall

 Easton Area School District

 Grainger

1. **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.

 Riparian Area at Mill Race Park

Lehigh River Shad Ladders

Multiple Retention Ponds

Natural Wetlands behind Suburban EMS

Easton Area High School Riparian Area and Pond

Entire Bike Trail System (access for first responders).

1. **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.

Easton Area Academy

Nazareth Borough Municipal Authority

GJ Mills Apartments (serious flooding)

Art’s Toy Manufacturing (vacant)

Palmer Business Park

Hess Wood Recycling

Pallet Express

Blue Easel

Tower Products

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

State Route 22

Met ED Power Plant Sub Stations

State Route 33

Natural Gas Transmission Pipelines (several)

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

Dam at Bushkill Creek (Penn Pump Park)

Dam at Bushkill Creek (next to the Crayola building)

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

Fire Department

Suburban EMS

Easton Area High School

Palmer Elementary School

Easton Area Academy

Police Department

Palmer Township Municipal Building

Charles Chrin Community Center-shelter

Tracy Elementary School

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

 Briarcliffe Park

 Howard Lane Park

 Labarre Park

 Penn Pump Park

 Stephens Street Park

 Palmer Community Library

 Blue Easel

 Seip House

 Fairview Park

 Keystone Park

 Old Orchard Park

 Village at Mill Race Park

 1818 Tavern

 Seinsville Inn

**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 | 2018 |  | Planning | S | + | Yes, recommends riparian buffer overlays |  |  |
| Capital Improvement Plan |  |  | X | Administration | S |  |  | Capital projects to address hazard mitigation |  |
| Economic Development Plan |  |  |  | Administration |  |  |  |  | Will consider |
| Continuity of Operations Plan |  |  | X | Emergency Management | S | + | Yes, recognizes potential hazards |  |  |
| Stormwater Management Plan / Ordinance | X | 2007 updated 2023 |  | Public Services, Engineer | S |  |  |  |  |
| Open Space Management Plan (or Parks/Rec., Greenways Plan) | X | 2020Updated 2023 |  | Recreation, Planning | S | +  | Yes, recommendations for improved stormwater management in parks |  |  |
| Natural Resource Protection Plan |  |  |  | Planning |  |  |  |  | Will consider |
| Transportation Plan | X | 2002 |  | Planning | N |  |  |  |  |
| Historic Preservation Plan |  |  |  | Planning |  |  |  |  | Will consider |
| Floodplain Management Plan |  |  |  | Planning |  |  |  |  | Will consider |
| Farmland Preservation |  |  |  | Planning |  |  |  |  | Will consider |
| Evacuation Plan |  |  | X | Emergency Management | S |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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** |
|  | Disaster Recovery Plan | X | Updated 2017, Part of EOP |  | Emergency Management |  |  |  |  |  |
| Hazard Mitigation Plan | X | 2018 |  | Several | S | + | N/A |  |  |
| Emergency Operations Plan | X | 2003,Last updated 2022 | X | Emergency Management | S | + | Yes, Recognizes potential hazards |  |  |
| Zoning Regulations | X | 2023 |  | Zoning, Planning | S | + | Yes, establishes riparian buffer overlay districts |  |  |
| Floodplain Regulations | X | 2023 |  | Planning | S | + | Yes |  |  |
| NFIP Participation | X | 1976 |  | Planning | S | + |  |  |  |
| Building Code | X | PA UCC |  | Codes |  |  |  |  |  |
| Fire Code | X | Updated5/2022 |  | Fire Commissioner |  | + |  | Adopt a Fire Inspection Program |  |
| Other | X |  |  | Planning |  |  |  |  | Carbonate bedrock standards adopted 2003 as part of SALDO |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **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 |  | Planning | + |  | Additional Planner hired |
| Planners or engineers (with natural and / or human-caused hazards knowledge) | X |  | Geotechnical Engineer (consultant) |  |  |  |
| Engineers or professionals trained in building and / or infrastructure construction practices (including building inspectors) | X |  | Codes, Engineer(consultant) | + |  | Additional engineers hired |
| Emergency Manager | X |  | Emergency Manager | + |  | Fire Commissioner, Chief of Police |
| Floodplain administrator / manager | X |  | Planning | + |  | CFM Planner hired |
| Land surveyors | X |  | Engineer (consultant) | + |  |  |
| Staff familiar with the hazards of the community | X |  | Public Services, Emergency Management |  |  |  |
| Personnel skilled in Geographical Information Systems (GIS) and / or FEMA’s HAZUS program | X |  | Planning | + |  | Additional Planner hired |
| Grant writers or fiscal staff to handle large / complex grants | X |  | Public Services, Emergency Management, Planning |  |  |  |
| Other |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **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 |  | Administration |  |  |  |
| Community Development Block Grants (CDBG) |  |  |  |  |  |  |
| Special purposes taxes | X |  | Administration |  |  | North End Neighborhood Improvement District |
| Gas / Electricity utility fees |  |  |  |  |  |  |
| Water / Sewer fees | X |  | Administration, Public Services, Planning |  |  | Sewer only |
| Stormwater utility fees | X |  | Public Services | + |  | Implementation for 2024 |
| Development impact fees | X |  | Planning | + |  | Recreation fees, voluntary traffic contributions |
| General obligation, revenue, and / or special tax bonds | X |  | Administration |  |  |  |
| Partnering arrangements or intergovernmental agreements | X |  | Emergency Management | + |  | Mutual Aid |
| Other |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **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 |  | Fire Department |  |  |  |
| StormReady Certification |  |  | Fire Department |  |  | Under Construction |
| Natural disaster or safety-related school programs | X |  | Fire Department |  |  | Fire Safety Programs to Community Educators and Daycare Staff |
| Ongoing public education or information programs such as, responsible water use, fire safety, household preparedness, and environmental education.  | X |  | Fire Department, Environmental Steering Committee |  |  | Fire Safety Program to Community Educators and Daycare Staff, establishing environmental education webinars |
| Public-private partnership initiatives addressing disaster related issues.  | X |  | Emergency Operations |  |  | Active shooter and other emergency drills |
| Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.  | X |  | Police and Fire Departments, Nurture Nature Center |  |  | Program Under Development Participate in the Create Resilience Project |
| 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 |  | Additional staff hired |  |
| 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** |
| GJ Mills | Multi-family residential | 1 (10 dwelling units) | Bushkill Drive | Flooding | Proposed |
| Palmer Residences | Multi-family residential | 1 (84 dwelling units) | Milford Street | Sinkholes | Underway |
| MRP Industrial | Industrial | 2 | Van Buren Road and Main Street | Sinkholes | Underway |
| Carson 100/200 | Industrial | 5 | Van Buren Road and Main Street | Sinkholes | Underway |
| First Park 33 | Industrial | 4 | Tatamy Road and Newlins Mill Road | Sinkholes | Underway |
| 48 Kunkle Drive Carwash | Commercial | 1 | Kunkle Drive | Flooding | Proposed |

**Natural & Non-Natural Event History Specific to Palmer Township**

|  |  |  |
| --- | --- | --- |
| **Type of Event and Date(s)** | **FEMA Disaster #****(if applicable)** | **Local Damage(s) or Loss(es)** |
| Sinkhole – April 2018 |  | Road damage, utility and infrastructure damage (water and sewer) |
| Sinkhole – July 2020 |  | Road damage, infrastructure damage (storm sewer) |
| Tropical Storm Isaias – August 4th, 2020 |  | Infrastructure damage (sewer & storm sewer) & Assistance to eligible individuals and families affected by this disaster. |
| COVID-19 Pandemic – March, 2020 | DR-4506-PA | Financial Losses |
| Remnants of Hurricane Ida – August, 2022 | DR-4618-PA | Assistance to eligible individuals and families affected by this disaster. |
| Flash Flooding – July 2023 |  | Road damage, utility damage, park damage |

**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** | Retrofit structures located in hazard- prone areas to protect structures from future damage, with repetitive loss & severe repetitive loss properties as priority. Specifically identified are the following:- Tatamy Road near Bushkill Creek 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 andlocal match availability. | X |  |  |  |  | Progress to continue with additional staffing recently hired in 2023 |
| **2** | Purchase, or relocate structures located in hazard- prone areas to protect structures from future damage, with repetitive loss & severe repetitive loss properties as priority. Specifically identified are the following:- Stocker Mill Road near Bushkill Creek 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 andlocal match availability. | X |  |  |  |  | Progress to continue with additional staffing recently hired in 2023 |
| **3** | Maintain compliance with & good- standing in the NFIP including adoption & enforcement of floodplain management requirements (e.g. regulating all new & substantially improved construction in Special Hazard Flood Areas), floodplain identification & mapping, & flood insurance outreach to the community. Further, continue to meet and/or exceed the minimum NFIP standards & criteria through the following NFIP- related continued compliance actions identified asInitiatives 4a-4d (below). |  |  | X |  |  | Ordinance adopted June 24, 2014. Action carried through to the 2018 Action Plan. Ordinance revised in 2023 Zoning Ordinance |
| **4** | Conduct and facilitate community & public education & outreach for residents & businesses to include, but not be limited to, the following to promote & effect natural hazard risk reduction:a.) Provide & maintain links to the HMP website, & regularly post notices on the municipal website referencing the HMP webpages.b.) Prepare & distribute informational letters to flood vulnerable property owners, explaining the availability of mitigation grant funding to mitigate their properties, & instructing them on how they can learn more & implement mitigation.c.) Use newsletters to better educate the public on flood insurance, sinkhole insurance, the availability of mitigation grant funding, & personal natural hazard risk reduction measures.d.) Work with homeowners’ associations, civic & business groups to disseminate information on flood insurance, sinkhole insurance, & the availability of mitigation grant funding. |  |  | X |  |  | Have provided mailings to floodplain property owners and provided information in newsletter and on website  |
| **5** | Begin and/or continue the process to adopt higher regulatory standards to manage flood risk (i.e. increasedfreeboard, cumulative substantial damage/improvements). |  |  | X |  |  | Increased freeboard regulations adopted |
| **6** | Determine if a Community Assistance Visit (CAV) or Community Assistance Contact (CAC) is needed, and schedule if needed. |  | X |  |  |  | CAV is needed, will need to schedule |
| **7** | 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. |  |  |  | X |  | CFM certified planner hired 2023  |
| **8** | 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’scurrent compliance with the NFIP is established. |  | X |  |  |  | Reviewing potential for joining CRS |
| **9** | Obtain and archive elevation certificates for NFIP compliance. |  |  | X |  |  |  |
| **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 theComprehensive 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 |  |  | Progress to continue with additional staffing recently hired in 2023 |
| **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 |  |  | Progress to continue with additional staffing recently hired in 2023 |

**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 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** | Retrofit structures located in hazard- prone areas to protect structures from future damage, with repetitive loss & severe repetitive loss properties as priority. Specifically identified are the following:- Tatamy Road near Bushkill Creek 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 andlocal match availability. | 1 | Structural Project  | Flood, Windstorm/Tornado, Winter Storm | High | High | FEMA Mitigation Grant Programs and property owner for cost share | Municipality with support from PEMA, FEMA | Long-term DOF | Existing |
| **2** | Purchase, or relocate structures located in hazard- prone areas to protect structures from future damage, with repetitive loss & severe repetitive loss properties as priority. Specifically identified are the following:- Stocker Mill Road near Bushkill Creek 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 andlocal match availability. | 2 | Structural Project  | Flood | High | High | FEMA Mitigation Grant Programs and local budget for cost share | Municipality with support from PEMA, FEMA | Long-term DOF | Existing |
| **3** | Maintain compliance with & good- standing in the NFIP including adoption & enforcement of floodplain management requirements (e.g. regulating all new & substantially improved construction in Special Hazard Flood Areas), floodplain identification & mapping, & flood insurance outreach to the community. Further, continue to meet and/or exceed the minimum NFIP standards & criteria through the following NFIP- related continued compliance actions identified asInitiatives 4a-4d (below). | 3 | Planning Mechanisms, Education and Outreach | Flood, Windstorm/Tornado, Winter Storm | High | Low-Medium | Local Budget | Municipality (via NFIP Floodplain Administrator) with support from PEMA, ISO FEMA | Ongoing | New & Existing |
| **4** | Conduct and facilitate community & public education & outreach for residents & businesses to include, but not be limited to, the following to promote & effect natural hazard risk reduction:a.) Provide & maintain links to the HMP website, & regularly post notices on the municipal website referencing the HMP webpages.b.) Prepare & distribute informational letters to flood vulnerable property owners, explaining the availability of mitigation grant funding to mitigate their properties, & instructing them on how they can learn more & implement mitigation.c.) Use newsletters to better educate the public on flood insurance, sinkhole insurance, the availability of mitigation grant funding, & personal natural hazard risk reduction measures.d.) Work with homeowners’ associations, civic & business groups to disseminate information on flood insurance, sinkhole insurance, & the availability of mitigation grant funding. | 4 | Education and Outreach  | All Hazards | High | Low-Medium | Municipal Budget | Municipality with support from Planning Partners, PEMA, FEMA | Short | N/A |
| **5** | Begin and/or continue the process to adopt higher regulatory standards to manage flood risk (i.e. increasedfreeboard, cumulative substantial damage/improvements). | 5 | Planning Mechanisms, Education and Outreach | Flood, Windstorm/Tornado, Winter Storm | High | Low | Municipal Budget | Municipality with support from PEMA, FEMA | Short | New & Existing |
| **6** | Determine if a Community Assistance Visit (CAV) or Community Assistance Contact (CAC) is needed, and schedule if needed. | 3 | Education and Outreach | Flood, Windstorm/Tornado, Winter Storm | High | Low | Municipal Budget | NFIP Floodplain Administrator with support from PADEP, PEMA, FEMA | Short (year 1) | N/A |
| **7** | 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. | 6 | Education and Outreach | Flood, Windstorm/Tornado, Winter Storm | Medium | Low | Municipal Budget | NFIP Floodplain Administrator | Short (DOF) | N/A |
| **8** | 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’scurrent compliance with the NFIP is established. | 7 | Education and Outreach | Flood, Windstorm/Tornado, Winter Storm | High | Low | Municipal Budget | NFIP Floodplain Administrator with support from PADEP, PEMA, FEMA | Short (year 1) | N/A |
| **9** | Obtain and archive elevation certificates for NFIP compliance. | 8 | Education and Outreach | Flood, Windstorm/Tornado, Winter Storm | Low | Low | Local Budget | NFIP Floodplain Administrator | Ongoing | N/A |
| **10** | Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0 | 9 | Planning Mechanisms | 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 |
| **11** | Complete the ongoing updates of the Comprehensive Emergency Management Plans. | 10 | Planning Mechanisms | All Hazards | Medium | Low | Local Budget | Municipality with support from PEMA | Ongoing | New & Existing |
| **12** | Create/enhance/maintain mutual aid agreements with neighboring communities for continuity of operations. | 11 | Planning Mechanisms, Education and Outreach | All Hazards | Medium | Low | Local Budget | Municipality with support from surrounding municipalities and County | Ongoing | New & Existing |
| **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. | 12 | Education and Outreach  | All Hazards | Low | Medium | Local Budget | Municipality with support from County, PEMA, FEMA | Short | N/A |
| **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). | 13 | Education and Outreach | All Hazards | Medium | Medium | Local budget, FEMA HMA grant programs | Municipality with support from County PEMA | Short-, Long-term DOF | N/A |
| **15** | Rewrite zoning ordinance and update SALDO regulations in accordance with newly adopted Comprehensive Plan and Parks & Open Space Plan. | 22 | Local Plans and Regulations | Flood, Sinkholes, Environmental Hazards/Explosion | High | $70,000 | General funds grants | Planning | One Year | N/A |
| **16** | Purchase and installation of permanent, alternative power source (IE: generator) for the municipal building. The Municipal Building is not only the central location of government operations for all residents within the community but also houses/serves as the Emergency Operations Center (EOC) both during and after weather / non-weather related incidents. | 17 | Structure and Infrastructure | All Hazards | High | High | FEMA Mitigation Grant Programs, Municipal Budget | Municipality with support from Local and County EM | Short-term | New & Existing |
| **17** | Purchase and installation of permanent, alternative power source (IE: generator) for the municipally owned Charles Chrin Community Center. This facility serves as the primary sheltering location as well as a heating/cooling/charging station for the residents during and after any weather / non-weather incidents.Without power, the facility is unable to provide adequate, necessary services. | 17 | Structure and Infrastructure | All Hazards | High | High | FEMA Mitigation Grant Programs, Municipal Budget | Municipality with support from Local and County EM | Short-term  | New & Existing |
| **18** | Installation of a large, underground public stormwater culvert system parallel to existing culverts on Meadow Avenue, Seip Avenue and terminate along Nazareth Road. | 15 | Structure and Infrastructure | Flooding | Medium | High | FEMA Mitigation Grant Programs, Municipal Budget | Municipality with support from Local and County EM | Long-Term (3-years) DOF | 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 andCommunities
* **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