**Macungie Borough, Lehigh County Annex**

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

|  |  |
| --- | --- |
| **Primary:** | **Alternate:** |
| John BrownBorough Manager21 Locust Street / Macungie, PA 18062610-966-2503manager@macungie.pa.us | Michael NatysynMacungie Fire Chief31 North Walnut Street, Macungie, PA 18062484-357-1785Mn5428@aol.com |

**Municipal Profile**

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

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

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

**Municipal Participation**

1. Identify municipal stakeholders to be involved in the planning process such as, floodplain administrator, public works, emergency management, engineers, planners, etc., and include their specific role in the process.

|  |  |
| --- | --- |
| John Brown, Borough ManagerRole: Borough Manager | Ryan Kern, Borough EngineerRole: Engineering |
| Tracy Smith, Public Works DirectorRole: Public Works Maintenance | Ken Nicholson, Zoning/Code EnforcementRole: Enforcement |
| Michael Natysyn, Fire ChiefRole: Planning | Chris Boehm, Borough ManagerRole: Floodplain Administrator |
| Ronald Conrad, MayorRole: Public Policy | Chris Becker, Council PresidentRole: Public Policy |

*\*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.

None

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: Newsletter, Facebook, Website

 Past: Same

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

| **Topic** | **Identify source of information, if different from the one listed.** | **Additional Comments** |
| --- | --- | --- |
| **1. Staff Resources** |
| Is the Community Floodplain Administrator (FPA) or NFIP Coordinator certified? | Community FPA | No |
| Is floodplain management an auxiliary function? | Community FPA | Yes |
| Provide an explanation of NFIP administration services (e.g., permit review, GGIS, education or outreach, inspections, engineering capability) | Community FPA | Permit Review; GIS |
| What are the barriers to running an effective NFIP program in the community, if any? | Community FPA | Funding and staffing |
| **2. Compliance History** |
| Is the community in good standing with the NFIP? | State NFIP Coordinator, FEMA NFIP Specialist, or community records | Yes |
| Are there any outstanding compliance issues (i.e., current violations)? |  | No |
| When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)? |  | N/A |
| Is a CAV or CAC scheduled or needed? |  | No |
| **3. Regulation** |
| When did the community enter the NFIP? | NFIP Community Status Book | N/A |
| Are the Flood Insurance Rate Maps (FIRMs) digital or paper? How are residents assisted with mapping? | Community FPA | Paper, assisted by Zoning Officer |
| Do floodplain regulations meet or exceed FEMA or State minimum requirements? If so, in what ways? | Community FPA | Meet |
| Describe the permitting process | Community FPA, State, FEMA NFIP | Permit plans are submitted to the Zoning / Code Enforcement Officer for review. If necessary, they are sent to the Borough Engineer for review and Planning Commission prior to approval. |
| **4. Insurance Summary** |
| How many NFIP policies are in the community?What is the total premium and coverage? | State NFIP Coordinator orFEMA NFIP Specialist | N/A |
| How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been? | FEMA NFIP or Insurance Specialist | N/A |
| How many structures are exposed to flood risk within the community? | Community FPA or GIS Analyst | N/A |
| Describe any areas of flood risk with limited NFIP policy coverage | Community FPA or FEMA Insurance Specialist | N/A |
| **5. Community Rating System (CRS)** |
| Does the community participate in CRS? | Community FPA, State, or FEMA NFIP | N/A |
| If so, what is the community’s CRS Class Ranking? | Flood Insurance Manual (http://www.fema.gov/floodinsurancemanual.gov) | N/A |
| What categories and activities provide CRS points and how can the Class be improved? |  | N/A |
| Does the plan include CRS planning requirements? | Community FPA, FEMA CRS Coordinator, or ISO representative | N/A |

**Community Assets**

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

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

Elderly

Daycares

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

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

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

 Allen Organ

 Kalmbach Memorial Park

 Macungie Memorial Park

 Main Street (downtown businesses)

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.

 Stream bank restoration

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.

Macungie Meadows – Housing Authority of Lehigh County

Day Cares

Main Street businesses and residences

Building on Race Street – due to the age of the building, construction type and location

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

Macungie Borough Water System

Norfolk Southern Railroad

UGI Utilities

Macungie Borough Sewer System

SR 100

PPL

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

N/A

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

 Macungie Police Department

 Macungie Borough Hall

 Macungie Volunteer Fire Department

 Macungie Institute Community Center

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

 Macungie Historic Society

 Kalmback Memorial Park

 Macungie Memorial Park

**Capability Assessment**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Capability** | * **Regulatory**
* **Tools**
* **Programs**
 | **Status** | **Department /** **Agency** **Responsible** | **Effect on Hazard Loss Reduction:** **-Supports****-Neutral****-Hinders** | **Change since 2018 Plan?****+ Positive****- Negative** | **Has the 2018 Plan been integrated into the Regulatory Tool/Program? If so, how?** | **How can these capabilities be expanded and improved to reduce risk?** | **Additional Comments** |
| **In Place** | **Date Adopted or Updated** | **Under Development** |
| **1. Planning & Regulatory** | Comprehensive Plan | X | 10/2017 |  | Administration | S | + | No |  |  |
| Capital Improvement Plan |  |  |  |  |  |  |  |  |  |
| Economic Development Plan |  |  |  |  |  |  |  |  |  |
| Continuity of Operations Plan |  |  |  |  |  |  |  |  |  |
| Stormwater Management Plan / Ordinance | X | 6/6/2005 |  | Administration | N | - | No |  |  |
| Open Space Management Plan (or Parks/Rec., Greenways Plan) | X | 2008 |  | Administration | N | - | No |  |  |
| Natural Resource Protection Plan |  |  |  |  |  |  |  |  |  |
| Transportation Plan |  |  |  |  |  |  |  |  |  |
| Historic Preservation Plan |  |  |  |  |  |  |  |  |  |
| Floodplain Management Plan | X | 12/2013 |  | Administration | N |  | No | Funding / Staffing |  |
| Farmland Preservation |  |  |  |  |  |  |  |  |  |
| Evacuation Plan |  |  |  |  |  |  |  |  |  |
| Disaster Recovery Plan |  |  |  |  |  |  |  |  |  |
| Hazard Mitigation Plan | X | 2018 |  | LVPC | N |  | N/A |  |  |
| Emergency Operations Plan | X | 2003 |  | EmergencyManagementCoordinator | N |  |  | Staffing |  |
| Zoning Regulations | X | 12/16/13 |  | Administration | N |  |  |  |  |
| Floodplain Regulations | X | 12/16/13 |  | Administration | N |  | No |  |  |
| NFIP Participation | X | 7/21/08 |  | Administration | N |  |  |  |  |
| Building Code | X | 10/15/12 |  | Administration | N |  |  |  |  |
| Fire Code |  |  |  |  |  |  |  |  |  |
| Other |  |  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Capability** | * **Staff**
* **Personnel**
* **Resources**
 | **Yes** | **No** | **Department / Agency** | **Change since 2018 Plan?****+ Positive****- Negative** | **How can these capabilities be expanded and improved to reduce risk?** | **Additional Comments** |
| **2. Administrative & Technology** | Planners (with land use / land development knowledge) | X |  | Borough Engineer | No | training |  |
| Planners or engineers (with natural and / or human-caused hazards knowledge) | X |  | Borough Engineer | No | training |  |
| Engineers or professionals trained in building and / or infrastructure construction practices (including building inspectors) | X |  | Borough Engineer | No | training |  |
| Emergency Manager | X |  | Council | No | training |  |
| Floodplain administrator / manager | X |  | Zoning/Admin | No | training |  |
| Land surveyors | X |  | Borough Engineer | No | training |  |
| Staff familiar with the hazards of the community | X |  | Zoning/Code Enforcement/Admin | No | training |  |
| Personnel skilled in Geographical Information Systems (GIS) and / or FEMA’s HAZUS program | X |  | Code Enforcement | Yes | training | Our current zoning officer knows GIS. |
| Grant writers or fiscal staff to handle large / complex grants | X |  | Borough Engineer/ Borough Manager | Yes | training | Borough Engineer has grant writing capability. |
| Other |  |  |  |  |  |  |
| **3. Financial Resources** | Capital improvement programming |  |  |  |  |  |  |
| Community Development Block Grants (CDBG) | X |  | Administration | No |  |  |
| Special purposes taxes |  |  |  |  |  |  |
| Gas / Electricity utility fees |  |  |  |  |  |  |
| Water / Sewer fees | X |  | Borough Council / Water Authority | No |  |  |
| Stormwater utility fees |  |  |  |  |  |  |
| Development impact fees |  |  |  |  |  |  |
| General obligation, revenue, and / or special tax bonds |  |  |  |  |  |  |
| Partnering arrangements or intergovernmental agreements |  |  |  |  |  |  |
| Other |  |  |  |  |  |  |
| **4. Education & Outreach** | Firewise Communities Certification |  |  |  |  |  |  |
| StormReady Certification |  |  |  |  |  |  |
| Natural disaster or safety-related school programs |  |  |  |  |  |  |
| Ongoing public education or information programs such as, responsible water use, fire safety, household preparedness, and environmental education.  | X |  | Borough Manager | No |  |  |
| Public-private partnership initiatives addressing disaster related issues.  |  |  |  |  |  |  |
| Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.  |  |  |  |  |  |  |
| Other |  |  |  |  |  |  |

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

**Known or Anticipated Future Development / Redevelopment**

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

**Natural & Non-Natural Event History Specific to Macungie Borough**

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

**2018 Municipal Action Plan Status**

| **Existing Mitigation Action****(from 2018 Hazard Mitigation Plan)** | **Status** | **Additional Comments** |
| --- | --- | --- |
| **No Progress /** **Unknown** | **In Progress** | **Continuous** | **Completed** | **Discontinued** |
| **1** | Stream bank stabilization.  | X |  |  |  |  | The Borough will be performing streambank restoration along Mountain Creek as part of our MS4 Program. |
| **2** | Implement flood control projects as identified in the 2006 plan, specifically at the following locations: 150 Locust Street; 100, 138 and 140 W. Main Street; 50, 50 rear, 74-76 Race Street; 235 S. Walnut Street; 101 N. Church Street; 200 Cotton Street; 143 E. Main Street; 50 N. Poplar Street. |  |  |  | X |  | Norfolk Southern Railroad removed sediment from the Swabia Creek streambed at Rt.100. Action carried through to the 2018 Action Plan. |
| **3** | Retrofit structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. Phase 1: Identify appropriate candidates for retrofitting based on cost-effectiveness versus relocation. Phase 2: Where retrofitting is determined to be a viable option, work with property owners toward implementation of that action based on available funding from FEMA and local match availability.  | X |  |  |  |  | Insufficient staffing to complete this project. |
| **4** | Purchase, or relocate structures located in hazard- prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. Phase 1: Identify appropriate candidates for relocation based on cost-effectiveness versus retrofitting. Phase 2: Where relocation is determined to be a viable option, work with property owners toward implementation of that action based on available funding from FEMA and local match availability.  | X |  |  |  |  | Insufficient staffing to complete this project. |
| **5** | Maintain compliance with and good standing in the NFIP including adoption and enforcement of floodplain management requirements (e.g. regulating all new and substantially improved construction in Special Hazard Flood Areas), floodplain identification and mapping, and flood insurance outreach to the community. Further, continue to meet and/or exceed the minimum NFIP standards and criteria through the following NFIP- related continued compliance actions identified below.  |  |  | X |  |  |  |
| **6** | Conduct and facilitate community and public education and outreach for residents and businesses to include, but not be limited to, the following to promote and effect natural hazard risk reduction: Provide and maintain links to the HMP website, and regularly post notices on the County/municipal homepage(s) referencing the HMP webpages. Work with neighborhood associations, civic and business groups to disseminate information on flood insurance and the availability of mitigation grant funding.  |  |  | X |  |  |  |
| **7** | Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0. |  | X |  |  |  |  |
| **8** | Complete the ongoing updates of theComprehensive Emergency Management Plans. | X |  |  |  |  | No Emergency Management Coordinator |
| **9** | Create/enhance/maintain mutual aid agreements with neighboring communities for continuity of operations. |  |  | X |  |  |  |
| **10** | Develop and maintain capabilities to process FEMA/PEMA paperwork after disasters; qualified damage assessment personnel – Improve post-disaster capabilities – damage assessment; FEMA/PEMA paperwork compilation, submissions, record keeping. |  |  | X |  |  |  |
| **11** | Work with regional agencies (i.e. County and PEMA) to help develop damage assessment capabilities at the local level through such things as training programs, certification of qualified individuals (e.g. code officials, floodplain managers, engineers). |  |  | X |  |  |  |

**Notes:**

1. Actions not carried through to the 2023 Action Plan are so noted.
2. To maintain National Flood Insurance Program (NFIP) compliance, actions related to the NFIP were carried through to the 2023 Action Plan even if identified by the municipality as completed.

**2023 Mitigation Action Plan**

| **Mitigation Action** | **Regional Action Category** | **Mitigation Technique Category** | **Hazard(s) Addressed** | **Priority****(H / M / L)** | **Estimated Cost** | **Potential Funding** | **Lead Agency / Department** | **Implementation Schedule** | **Applies to New and / or Existing Structures** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1** | Stream bank stabilization.  | 20 | Natural Systems Protection | Flood | Medium | High | FEMAMitigation GrantPrograms and localbudget (or propertyowner) for cost share | Municipality(via MunicipalEngineer/NFIP FloodplainAdministrator) with support from PEMA,FEMA | Long-term(depending on funding) | Existing |
| **2** | Implement flood control projects as identified in the 2006 plan, specifically at the following locations: 150 Locust Street; 100, 138 and 140 W. Main Street; 50, 50 rear, 74-76 Race Street; 235 S. Walnut Street; 101 N. Church Street; 200 Cotton Street; 143 E. Main Street; 50 N. Poplar Street.  | 15 | Structure & Infrastructure | Flood | Medium | High | FEMAMitigation GrantPrograms and localbudget (or propertyowner) for cost share | Municipality(via MunicipalEngineer/NFIP FloodplainAdministrator) with support from PEMA,FEMA | Long-term(depending on funding) | Existing |
| **3** | Retrofit structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. Phase 1: Identify appropriate candidates for retrofitting based on cost-effectiveness versus relocation. 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.  | 1 | Structure & Infrastructure | Flood | High | High | FEMAMitigation GrantPrograms and localbudget (or propertyowner) for cost share | Municipality(via MunicipalEngineer/NFIP FloodplainAdministrator) with support from PEMA,FEMA | Long-term(depending on funding) | Existing |
| **4** | Purchase, or relocate structures located in hazard- prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. Phase 1: Identify appropriate candidates for relocation based on cost-effectiveness versus retrofitting. Phase 2: Where relocation is determined to be a viable option, work with property owners toward implementation of that action based on available funding from FEMA and local match availability.  | 2 | Structure & Infrastructure | Flood | High | High | FEMAMitigation GrantPrograms and localbudget (or propertyowner) for cost share | Municipality(via MunicipalEngineer/NFIP FloodplainAdministrator) with support from PEMA,FEMA | Long-term(depending on funding) | Existing |
| **5** | Maintain compliance with and good standing in the NFIP including adoption and enforcement of floodplain management requirements (e.g. regulating all new and substantially improved construction in Special 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.  | 3 | Local plans & Regulations | Flood | High | Low -Medium | Municipal Budget | Municipality(via MunicipalEngineer/NFIP FloodplainAdministrator) with support from PEMA,ISO FEMA | Ongoing | New &Existing |
| **6** | Conduct and facilitate community and public education and outreach for residents and businesses to include, but not be limited to, the following to promote and effect natural hazard risk reduction: Provide and maintain links to the HMP website, and regularly post notices on the County/municipal homepage(s) referencing the HMP webpages. Work with neighborhood associations, civic and business groups to disseminate information on flood insurance and the availability of mitigation grant funding.  | 4 | Education & Awareness | All Hazards | High | Low – High (for5-year update) | Municipal Budget, possiblyFEMAMitigationGrantFunding for 5-year update | Municipality (via mitigation planning point of contacts)with supportfrom Planning Partners(through their Points ofContact),PEMA | Ongoing | New &Existing |
| **7** | Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0. | 9 | AllCategories | All Hazards | High | Low – High (for5-year update) | Municipal Budget, possiblyFEMAMitigationGrantFunding for 5-year update | Municipality (via mitigation planning point of contacts)with supportfrom Planning Partners(through theirPoints ofContact),PEMA | Ongoing | New &Existing |
| **8** | Complete the ongoing updates of the Comprehensive Emergency Management Plans. | 10 | Local plans& Regulations | All Hazards | Medium | Low | Municipal Budget | Municipality with support from PEMA | Ongoing | New &Existing |
| **9** | Create/enhance/maintain mutual aid agreements with neighboring communities for continuity of operations. | 11 | AllCategories | All Hazards | Medium | Low | Municipal Budget | Municipality with support fromsurroundingmunicipalities and County | Ongoing | New &Existing |
| **10** | Develop and maintain capabilities to process FEMA/PEMA paperwork after disasters; qualified damage assessment personnel – Improve post-disaster capabilities – damage assessment; FEMA/PEMA paperwork compilation, submissions, record keeping. | 12 | Education& Awareness | All Hazards | low | Medium | Municipal Budget | Municipality with supportfrom County,PEMA, FEMA | Short-term | N/A |
| **11** | Work with regional agencies (i.e. County and PEMA) to help develop damage assessment capabilities at the local level through such things as training programs, certification of qualified individuals (e.g. code officials, floodplain managers, engineers). | 13 | Education& Awareness | All Hazards | Medium | Medium | Municipal budget,FEMAHMA grant programs | Municipality with supportfrom County,PEMA | Short-term(depending on funding) | N/A |

**Notes:**

***Estimated Costs:***

* Where actual project costs have been reasonable estimated: Low = < $10,000; Medium = $10,000 to $100,000; High = > $100,000;
* Where actual project costs cannot reasonably be established at this time:

 **Low** = Possible to fund under existing budget. Project is part of, or can be part of an existing on-going program.

 **Medium** = Could budget for under existing work plan, but would require a reapportionment of the budget or a budget amendment,

 or the cost of the project would have to be spread over multiple years.

 **High** = Would require an increase in revenue via an alternative source (i.e., bonds, grants, fee increases) to implement. Existing

 funding levels are not adequate to cover the costs of the proposed project.

***Potential Funding (FEMA HMA):***

* **BRIC =** Building Resilient Infrastructure 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