**Catasauqua Borough, Lehigh County Annex**

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

|  |  |
| --- | --- |
| **Primary:** | **Alternate:** |
| Joseph M. CarlEmergency Management Coordinator90 Bridge Street, Catasauqua, PA 18032610-264-0571, EXT. 217emergencymanagement@catasauqua.org | Glenn EckhartBorough Manager90 Bridge Street, Catasauqua, PA 18032610-264-0571, EXT. 217manager@catasauqua.org |

**Municipal Profile**

Catasauqua Borough is located in eastern Lehigh County, its northern border shared with the boundary of Northampton County. Located three miles north of the City of Allentown, Catasauqua is a suburban borough covering a small area of 1.3 square miles and has a population of 6,498 (2021 Census ACS). The borough is bordered by North Catasauqua and Allen Township, both in Northampton County, to the north; Hanover township (Lehigh County) to the east and south; and Whitehall Township to the west. The Lehigh River is the only significant body of water in Catasauqua Borough and forms the borough’s western border.

The main roadways serving Catasauqua Borough from the west include Race Street and Pine Street, both coming from Whitehall Township and crossing the Lehigh River. Race Street runs east-west along the southern edge of the borough and continues east as SR 1004 providing access to the Lehigh Valley International Airport and SR 987. Howertown Road is the main north-south roadway linking Catasauqua to Northampton County in the north and Lehigh Street for points to the south.

**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.

|  |  |
| --- | --- |
| Joseph M. Carl, Emergency Management CoordinatorRole: Emergency Management | Glenn Eckhart, Borough Manager/Floodplain AdministratorRole: Borough Manager/Floodplain Administrator |
| Remington & Vernick Engineers, Inc., Borough EngineerRole: Engineer | Brian Mckittrick, Public Safety ChairRole: Public Safety Committee |
| Debra Mellish, Planning and Zoning ChairRole: Planner | Greg Hoch, Deputy Emergency Management CoordinatorRole: Emergency Management |

 *\*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.

Catasauqua Public Safety Committee

Catasauqua Planning and Zoning Committee

Catasauqua Main Streets Committee

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: Public will be engaged via public meetings of the above committees and organizations, through the use of the Emergency Management page of the Borough Website, and via Facebook and Tumblr social media sites. Targeted or interested parties will also be kept abreast of activities via emails.

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 | Floodplain administration occurs via community outreach, inspections and engineering studies. |
| What are the barriers to running an effective NFIP program in the community, if any? | Community FPA | Time constraints, availability of certified personnel to perform more detailed work, cost of an expanded program |
| **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)? |  | None at this time |
| When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)? |  | Unknown |
| Is a CAV or CAC scheduled or needed? |  | Unknown |
| **3. Regulation** |
| When did the community enter the NFIP? | NFIP Community Status Book | 7/2/2004 |
| Are the Flood Insurance Rate Maps (FIRMs) digital or paper? How are residents assisted with mapping? | Community FPA | Borough has paper FIRMS |
| Do floodplain regulations meet or exceed FEMA or State minimum requirements? If so, in what ways? | Community FPA | Floodplain regulations meet the state minimum requirements.  |
| Describe the permitting process | Community FPA, State, FEMA NFIP | The permitting process is completed via the building permit process and associated engineering studies for borough zoning and building codes.  |
| **4. Insurance Summary** |
| How many NFIP policies are in the community?What is the total premium and coverage? | State NFIP Coordinator orFEMA NFIP Specialist | Approximately 7 claims  |
| 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 | 113 |
| 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 | Approximately 7 claims |
| **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.

Catasauqua High Rise – Senior Citizen Highrise Apartments

Catasauqua Apartments – Elderly Housing

Pyramid Health Care – Addiction Treatment Center

The borough also contains a public elementary school, a public middle school and a charter school for high school aged individuals.

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

Catasauqua School District – Alumni Field, School District Athletic Fields

Catasauqua School District – Thomas Field, Mixed Use Athletic Field

Catasauqua School District – Sheckler School, Mixed Use Athletic Fields

Opportunity Field – Youth Association Athletic Fields

Catasauqua Playground, Pool and Amphitheater – Municipal Recreation Facility

Candy Cane Park – Municipal recreation Facility

George Taylor Home – Municipal Historic Site

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

Catasauqua Borough, being primarily residential in nature, does not contain many large commercial centers or large employers. Most commercial facilities are small in size and are generally within a few blocks of the Lehigh River. Several businesses are located along Catasauqua Creek in the area north of Race Street including a metal fabrication shop, auto body repair shops and a heating and air conditioning contractor, which employs several people. Phoenix Forging on Front Street is a large metal forge shop that employs several people.

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.

Catasauqua Playground, Pool and Amphitheater - flood protection and erosion control walls running most of the length of the park protect facilities from flooding and erosion control.

Stein’s Field – park land along the Catasauqua Creek that generally floods prior to downstream areas holding back potential floodwaters.

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.

Most of the downtown area of Catasauqua bordering the Lehigh River contains large concentrations of buildings built in the 1800’s. Many of these structures are rather large homes, mixed occupancies and former industrial facilities that have been converted to apartments or multi-family residences. These structures are also constructed adjacent or in close proximity to each other and high-density populations that increase the hazards.

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

Catasauqua maintains its own water works and swage treatment facilities within borough limits. In addition, Catasauqua is also home to a 138Kv electrical transmission line and substation which supplies approximately 25MW of power to the general area. A petroleum pipeline also traverses residential areas in the southern portion of the borough limits and on the opposite side of the Lehigh River, which is the Borough’s western boundary. Catasauqua is also home to a Verizon switching station for local telephone communication, a fiber optic communications line running adjacent to the Norfolk Southern Railroad’s Lehigh Line, which makes up the borough’s western boundary running parallel to the Lehigh River. Although not in the borough, the Borough of Catasauqua is adjacent to the Lehigh Valley International Airport with Flight paths directly over the borough.

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

At this time, Catasauqua does not include any of these types of facilities, although at least 2 SARA Title 3 facilities are located within the borough, which include a municipal water works and a telephone company switching station. A manufacturing company also maintains radioactive x-ray equipment. Being located along the Lehigh River, Catasauqua is exposed to potential flooding from two large Army Corps of Engineers flood control dams located upstream in the event of onsite emergencies or dam failure at these facilities. Critical facilities such as, hospitals, medical facilities, police and fires stations, emergency operations centers, shelters, schools and airports / heliports.

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

In Catasauqua proper, there is 1 addiction treatment center. The Borough’s Municipal Complex contains the borough’s police and fire stations and a dedicated emergency operations center. Catasauqua also is home to 1 elementary school, 1 middle school and 1 charter school for high school aged students. All of these schools and approximately 10 churches are potential shelter sites during an emergency. There are also 7-day care centers in the borough of Catasauqua. As stated previously, the borough is adjacent to the Lehigh Valley International Airport.

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

The borough maintains numerous parks and recreational facilities, which include:

1. Catasauqua School District – Alumni Field, School District Athletic Field
2. Catasauqua School District – Thomas Field, Mixed Use Athletic Field
3. Catasauqua School District – Sheckler School, Mixed Use Athletic Fields
4. Opportunity Field – Youth Association Athletics Fields
5. Catasauqua Playground, Pool and Amphitheater – Municipal Recreation Facility
6. Candy Cane Park – Municipal Recreation Facility
7. George Taylor Home – Municipal Historic Site that also contains a museum
8. Catasauqua Public library – a public library within the borough

**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 | 8/2/1999 |  | Planning Commission | Supports | No Change | No | Via further plan updates |  |
| Capital Improvement Plan |  |  |  |  |  |  |  |  |  |
| Economic Development Plan |  |  |  |  |  |  |  |  |  |
| Continuity of Operations Plan |  |  | X | Emergency Management | Supports | No Change | Yes, in the development stages | Completed plan | Current EOP under revision will contain a COOP plan |
| Stormwater Management Plan / Ordinance | X | 10/4/04 |  | Planning and Building | Supports | No Change | No | Via further plan updates |  |
| Open Space Management Plan (or Parks/Rec., Greenways Plan) |  |  |  |  |  |  |  |  |  |
| Natural Resource Protection Plan |  |  |  |  |  |  |  |  |  |
| Transportation Plan |  |  |  |  |  |  |  |  |  |
| Historic Preservation Plan |  |  |  |  |  |  |  |  |  |
| Floodplain Management Plan |  |  |  |  |  |  |  |  |  |
| Farmland Preservation |  |  |  |  |  |  |  |  |  |
| Evacuation Plan | X | Adopted 2008, updated yearly |  | Emergency Management | Supports | Positive | Yes | Via further plan updates |  |
| Disaster Recovery Plan |  |  |  |  |  |  |  |  |  |
| Hazard Mitigation Plan | X | 2018 |  | Emergency Management and Counties | Supports | Positive | Yes |  |  |
| Emergency Operations Plan | X | Adopted 2008, updated yearly |  | EmergencyManagement  | Supports | Positive | Yes | Via further plan updates |  |
| Zoning Regulations | X |  |  | Zoning | Supports |  |  |  |  |
| Floodplain Regulations | X |  |  | Zoning and Building | Supports |  |  |  |  |
| NFIP Participation | X |  |  | Zoning and Building | Supports |  |  |  |  |
| Building Code | X |  |  | Building Official | Supports | Positive |  |  |  |
| Fire Code | X | Updated 2016 |  | Building Official | Supports | Positive | Yes |  |  |
| 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 |  | Building Official, Code Enforcement and Engineer | No |  |  |
| Planners or engineers (with natural and / or human-caused hazards knowledge) | X |  | Engineer | No |  |  |
| Engineers or professionals trained in building and / or infrastructure construction practices (including building inspectors) | X |  | Engineer | No |  |  |
| Emergency Manager | X |  | Emergency Management | No |  | New municipal complex contains a dedicated Emergency Operations Center |
| Floodplain administrator / manager | X |  | Borough Manager | No |  |  |
| Land surveyors | X |  | Engineer | No |  |  |
| Staff familiar with the hazards of the community | X |  | Emergency Management | No |  |  |
| Personnel skilled in Geographical Information Systems (GIS) and / or FEMA’s HAZUS program |  |  |  |  |  |  |
| Grant writers or fiscal staff to handle large / complex grants | X |  | Borough Manager | No |  |  |
| 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 |  |  |  |  | Included construction of new municipal complex |
| Community Development Block Grants (CDBG) | X |  | Borough Manager |  |  |  |
| Special purposes taxes |  |  |  |  |  |  |
| Gas / Electricity utility fees |  |  |  |  |  |  |
| Water / Sewer fees | X |  | Water/Sewer & Administration |  |  |  |
| Stormwater utility fees |  |  |  |  |  |  |
| Development impact fees | X |  | Administration |  |  |  |
| General obligation, revenue, and / or special tax bonds | X |  | Borough Manager |  |  |  |
| Partnering arrangements or intergovernmental agreements | X |  | Borough Manager |  |  |  |
| 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** |
| **4. Education & Outreach** | Firewise Communities Certification |  |  |  |  |  |  |
| StormReady Certification |  | X | Emergency Management |  |  | Under development with current emergency operations plan |
| Natural disaster or safety-related school programs | X |  | Emergency Management |  |  | Safet Schools participation and active shooter drills at school district facilities |
| Ongoing public education or information programs such as, responsible water use, fire safety, household preparedness, and environmental education.  | X |  | Emergency Management |  |  | Ongoing social media posts, participation at local events, open house programs at fire station and EOC |
| Public-private partnership initiatives addressing disaster related issues.  | X |  | Emergency Management |  |  | Communications with businesses in floodplains along with social media postings |
| Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.  | X |  | Emergency Management |  |  | Safe Schools and also periodic meetings with Day Care Centers and High Rise Senior Housing Facilities, Community Registry program developed in accordance with the Lehigh Valley Center for Independent Living (LVCIL) |
| 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 |  |  | About the same capability as in previous plans |
| Administrative and Technical |  | X |  |  | About the same capability as in previous plans |
| Financial | X |  |  |  | Limited capabilities due to lower receipts for water and sewer billing and tax income due to COVID |
| Education and Outreach |  |  | X |  | Capabilities have increased due to construction of the new borough complex and a dedicated EOC, the addition of a more robust website, social media usage and the new municipal complex, which provides for training and education areas not previously available. There is also increased participation and cooperation with the local school district. |

**Known or Anticipated Future Development / Redevelopment**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Development /** **Property Name** | **Type of Development** | **Number of Structures** | **Location** | **Known Hazard Zone** | **Description / Status** |
| Iron Works | Mixed Use | Unknown | West side of the 300 to 500 blocks of Front Street | Part of the property is located in a flood zone | Borough has an agreement of sale with a developer for this site and demolition of existing buildings is underway to make the site suitable for new construction. |
| 14th St. | Residential | 36 | West side of 14th St between Pearl St. and Bridge St. |  | Residential development has been proposed and currently working through the approvals process |
| 14th and Pearl Sts.. | Residential | 12 | 14th and Pearl Streets |  | Residential development has been proposed and currently working through the approvals process |

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

|  |  |  |
| --- | --- | --- |
| **Type of Event and Date(s)** | **FEMA Disaster #****(if applicable)** | **Local Damage(s) or Loss(es)** |
| Snowstorm – February 2014 | N/A | Exact amount of monies received not available at time of completion of this form |
| Hailstorm – May 2015 | N/A | Exact amount of monies received not available at time of completion of this form |
| Winter Storm Jonas – 1/2016 | DR-4267-PA | Exact amount of monies received not available at time of completion of this form |
| Pennsylvania COVID-19 Pandemic – 1/2020 | DR-4506-PA | Emergency Protective measures to combat COVID-19 Pandemic |
| Civil Protest – Summer 2020 | N/A | Emergency Protection measures to provide security for civil protest |
| Catasauqua Food Bank Support – Spring/Summer 2020 | N/A | Assisted local food bank with increased demands and shortage of food for distribution to those in need. |

**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** | Resize piping of culvert adjacent to East Catty Woods, from 14th Street crossing to confluence with Catasauqua Creek – Resize piping at 14th and 10th Street crossings to handled increased runoff due to construction throughout the drainage area. Build storm water retention area to control and manage runoff. Stabilize culvert and manage flows at confluence within Catasauqua Creek. Debris removal from culvert. Recent flooding has caused street closures and damage to residences and businesses in the area (~$2MM damages).  | X |  |  |  |  | No additional actions due to private property concerns and expense to perform work – water flow in this area has visibly increased due to additional industrial development just east of the Borough especially during times of heavy rainfall. |
| **2** | Critical Facility Monitoring - Upgrade and expand existing camera system for security of existing infrastructure and HAZMAT storage facilities at Catasauqua Water Works, wastewater treatment plant, Catasauqua pool, Fire Department, Police Department and Public Works facilities.  |  |  | X |  |  | Additional cameras added as budget permits – Additional needs due to end of life timeline for existing cameras. |
| **3** | Catasauqua Playground / Creek Retention Wall Repair / replace / update wall as needed to protect pool, pump station and park facilities from flooding and erosion. Most recent flood knocked down park fencing, filled pool with mud, and caused extensive damage to pump station.  |  | X |  |  |  | Minor work performed on an as needed basis however, major reconstruction is required due to age of construction. Expense of work continues to delay considerable work toward this project – Additional flooding concerns are noted due to increased water flows in the Catasauqua Creek watershed due to construction projects north and east of the Borough especially in times of heavy rainfall. |
| **4** | Fire/Police Public Education Outreach Program - Expand fire-prevention effort beyond school and emergency preparedness public education through an enlarged and enhanced periodic emergency preparedness fair, to improve preparedness on the part of citizens to equip themselves for an emergency and understand the current information and warning systems in place.  |  |  | X |  |  | Outreach programs continue on a continuous basis. These have increased in recent years with schools, senior high-rise buildings, day care centers and the public library. A new House of Hazards is currently under construction to support the outreach program. |
| **5** | Inundation areas for upstream dam failure  | X |  |  |  |  | Much of the borough's aging downtown is located within flood zones along the Lehigh River and Catasauqua Creek.Expense is a hindering factor. |
| **6** | Retrofit structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. Specifically identified are structures located in the following areas: - Catasauqua Creek flood plains- Lehigh River flood plains- Wood Street Bridge (lower 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 |  |  |  | Plans are underway to reduce flooding via the planned construction of a new Race St and Walnut St bridges over the Catasauqua Creek. |
| **7** | 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. Specifically identified are structures located in the following areas: - Catasauqua Creek flood plains - Lehigh River floodplains 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 |  |  |  |  | No work completed due to amount of borough subjected to potential flooding and expense of acquiring properties and relocations. |
| **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 |  |  | The borough maintains requirements of the NFIP program. |
| **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 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 grants 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. See also public education initiative above. |  |  | X |  |  | The borough maintains education regarding HMP via websites, emails and social media during times of considerable work and updates in this area |
| **10** | Begin and/or continue the process to adopt higher regulatory standards to manage flood risk (i.e. increased freeboard, cumulative substantial damage/improvements) and sinkhole risk (e.g. carbonate bedrock standards). | X |  |  |  |  |  |
| **11** | Determine if a Community Assistance Visit (CAV) or Community Assistance Contact(CAC) is needed, and schedule if needed. | X |  |  |  |  |  |
| **12** | Have designated NFIP FloodplainAdministrator (FPA) become a Certified Floodplain Manager through the ASFPM and/or pursue relevant continuing education training such as FEMA Benefit-Cost Analysis. | X |  |  |  |  | Floodplain administrator is not currently certified |
| **13** | 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’s current compliance with the NFIP is established. | X |  |  |  |  |  |
| **14** | Obtain and archive elevation certificates for NFIP compliance. | X |  |  |  |  |  |
| **15** | Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0 |  |  | X |  |  | Upgrades performed in accordance with county hazard mitigation plan upgrade time frames. |
| **16** | Complete the ongoing updates of the Comprehensive Emergency Management Plans |  |  | X |  |  | EOP updated annually, major rewrite underway for early 2018 to accommodate new municipal complex |
| **17** | Create/enhance/maintain mutual aid agreements with neighboring communities for continuity of operations. |  |  | X |  |  | Mutual aid plans maintained as necessaryand also participate in statewide mutual aid agreement |
| **18** | 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 |  |  | Damage assessment is included in yearly emergency management training and updated as necessary |
| **19** | 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 |  |  | Emergency management participates in yearly county sponsored emergency management training and performs damage assessment after significant events  |
| **20** | Increase storm water drainage capabilities and wetland protection and creation in the Catasauqua Creek Watershed to protect against and handle increased water runoff from large construction projects in neighboring municipalities. This includes improvements to current wall construction to protect public facilities, downstream properties and protection from erosion. This may also encompass upgrading or replacement of bridges over the Catasauqua Creek to handle increased water flows in the waterway. |  |  | X |  |  |  |
| **21** | Purchase lands, protect wetlands and purchase equipment to protect municipal water system wells from development encroachment in neighboring municipalities, which affect the capabilities and capacities of the water system along with water quality. |  |  | X |  |  |  |
| **22** | Increase storm water drainage capabilities and wetland protection and creation in the Lehigh River / Lehigh Canal Watershed to protect against and handle increased water runoff from large, planned, construction projects. This includes but is not limited to debris and obstruction removal from Lehigh Canal and planning for upstream dam failures. |  |  | X |  |  |  |
| **23** | Create additional emergency water system tie lines to neighboring water systems in the event area construction affects ground water tables and water quality in the Borough of Catasauqua Municipal Water System leaving wells unusable, contaminated, turbid, and decreased or no flow. This also applies to terrorism events on the water system. Enhancements also assist with Drought protection of the water system. |  |  | X |  |  |  |
| **24** | Increase and enhance all hazard warning system capabilities to provide more accurate and widespread communication to the public during an emergency. This may include construction of a low power AM radio station, and locate desirable replacements for no longer available internet based alerting programs and siren systems previously used and no longer functioning. |  |  | X |  |  |  |
| **25** | Increase hardening of municipal water system control systems, municipal telephone systems, and municipal emergency power generation systems to protect against cyber-attacks, and other fabricated and natural hazards, which include but are not limited to electromagnetic pulses, geo-magnetic disturbances, seismic activity, utility outages, flooding and supply train concerns. |  |  | X |  |  |  |
| **26** | Increase capabilities and purchase equipment to provide warming and cooling stations, evacuation reception centers and evacuation shelters during but not limited to severe hot and cold weather events, utility outages, terrorism and various other fabricated and non-man-made hazard occurrences. |  |  | X |  |  |  |
| **27** | Increase capabilities, knowledge, and public information to plan for, monitor, and respond to climate change and invasive species events. |  |  | X |  |  |  |
| **28** | Increase planning, training and response capabilities for responding to acts of terrorism, active shooter, active attacker, multi-casualty incidents, cyber-attacks, and civil-unrest to provide increased security and response capabilities to include municipal facilities, school district facilities, elderly and low income housing facilities, day-care facilities, and health-care facilities and the public located in the Borough of Catasauqua. |  |  | X |  |  |  |
| **29** | Increase capabilities, training, knowledge, and public information to plan for, monitor and respond to sinkholes, subsidence, seismic activity and other geologic-related hazards. |  |  | X |  |  |  |
| **30** | Increase capabilities, equipment, training, knowledge, code enforcement and public information to plan for and respond to structural fires. |  |  | X |  |  |  |
| **31** | Increase capabilities, equipment, training, knowledge, code enforcement and public information to plan for, monitor and respond to structural collapse. |  |  | X |  |  |  |
| **32** | Increase capabilities, equipment, training, knowledge, and public information to plan for, monitor and respond to instances of severe weather including but not limited to: high winds, flooding, hailstorms, winter storms, severe cold, severe heat, lightning, hurricanes and tornadoes. |  |  | X |  |  |  |
| **33** | Increase capabilities, equipment, training, knowledge, code enforcement and public information to plan for and respond to flood control and drainage corrective actions on roadways with recurring flooding. |  |  | X |  |  |  |
| **34** | Increase capabilities, equipment, training, knowledge, and public information to plan for and respond to drought events. This action includes but is not limited to updating the Borough Drought Response Plan and municipal water system operational and contingency planning and upgrades. |  |  | X |  |  |  |
| **35** | Increase capabilities, equipment, training, knowledge, and public information to plan for and respond to nuclear incident facilities accidents or terrorism activities employing nuclear devices. |  |  | X |  |  |  |
| **36** | Increase capabilities, equipment, training, knowledge, and public information to plan for and respond to transportation emergencies including but not limited to pipeline accidents, aircraft crashes, rail accidents, mass transportation accidents, bus accidents, school bus accidents. This may also include road or infrastructure improvements to facilitate safe travel and reduce accident occurrences. |  |  | X |  |  |  |
| **37** | Coordinate with the County Emergency Management Agency and PA Department of Health, which is responsible for setting up points of distribution and providers for immunizations. |  |  | X |  |  |  |
| **38** | Devise an employee vaccination and immunization plan to prevent an outbreak within the municipal employee ranks. |  |  | X |  |  |  |
| **39** | Devise a municipal continuity of operations plan to keep essential services running in the event that a significant portion of the workforce is affected. |  |  | X |  |  |  |
| **40** | Devise a public education and outreach plan regarding disease prevention. |  |  | X |  |  |  |
| **41** | Provide education and outreach to residents regarding how to prevent the spread of invasive species, including quarantine procedures. |  |  | X |  |  |  |
| **42** | Develop a neighborhood cleanup plan designed to remove discarded tires, trash and other items in which standing water can form. |  |  | X |  |  |  |
| **43** | Provide training and education for first responders to ensure effective emergency care. |  |  | X |  |  |  |
| **44** | Provide education and outreach, especially in K-12, regarding drug abuse prevention. |  |  | 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** | Resize piping of culvert adjacent to East Catty Woods, from 14th Street crossing to confluence with Catasauqua Creek – Resize piping at 14th and 10th Street crossings to handled increased runoff due to construction throughout the drainage area. Build storm water retention area to control and manage runoff. Stabilize culvert and manage flows at confluence within Catasauqua Creek. Debris removal from culvert. Recent flooding has caused street closures and damage to residences and businesses in the area (~$2MM damages). | 15 | Structure and Infrastructure | Flood | Medium | High | Federal, State, County and Municipal funding/grant opportunities | EMA (with support from Borough Manager and Public Works) | Short-term | Existing |
| **2** | Critical Facility Monitoring - Upgrade and expand existing camera system for security of existing infrastructure and HAZMAT storage facilities at Catasauqua Water Works, wastewater treatment plant, Catasauqua pool, Fire Department, Police Department and Public Work facilities. | 23 | Structure and Infrastructure | All Hazards | High | Medium | Homeland Security Grants, Municipal funding | Police Department | Ongoing (depending upon funding) | Existing |
| **3** | Catasauqua Playground / Creek Retention Wall Repair / replace / update wall as needed to protect pool, pump station and park facilities from flooding and erosion. Most recent flood knocked down park fencing, filled pool with mud, and caused extensive damage to pump station. | 15 | Structure and Infrastructure | Flood | Medium | Medium | FEMA, HMGP, Municipal Budget | Public Works | Ongoing (depending upon funding) | Existing |
| **4** | Fire/Police Public Education Outreach Program - Expand fire- prevention effort beyond school and emergency preparedness public education through an enlarged and enhanced periodic emergency preparedness fair, to improve preparedness on the part of citizens to equip themselves for an emergency and understand the current information and warning systems in place. | 4 | Education and Awareness | All Hazards | High  | Low | Municipal Budget | EMA | Ongoing (depending upon funding) | N/A |
| **5** | Inundation areas for upstream dam failure. | 14 | Local Plans and Regulations | Flood, Earthquake | Medium | High | Federal, State and County funding opportunities | NFIP Coordinator/EMA | Long-term (depending upon funding) | Existing |
| **6** | Retrofit structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority.Specifically identified are structures located in the following areas:- Catasauqua Creek flood plains- Lehigh River flood plains- Wood Street Bridge (lower 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 and Infrastructure | Flood, Earthquake | High | High | FEMA Mitigation Grant Programs and local budget (or property owner) for cost share | Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from PEMA, FEMA | Long-term (depending upon funding) | Existing |
| **7** | 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. Specifically identified are structures located in the following areas: - Catasauqua Creek flood plains- Lehigh River floodplains Phase 1: Identify appropriatecandidates for relocation based oncost-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 and Infrastructure | Flood | High | High | FEMA Mitigation Grant Programs and local budget (or property owner) for cost share | Municipality (via Municipality Engineer/NFIP Floodplain Administrator) with support from PEMA, FEMA | Long-term (depending upon funding) | Existing |
| **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. | 3 | Local Plans and Regulations | Flood | High | Low-Medium | Municipal Budget | Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from PEMA, ISO FEMA | Ongoing | New & Existing |
| **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 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 grants 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. See also public educationinitiative above. | 4 | Education and Awareness | All Hazards | High | Low-Medium | Municipal Budget | Municipality with support from Planning, Partners, PEMA, FEMA | Short-term | N/A |
| **10** | Begin and/or continue the process to adopt higher regulatory standards to manage flood risk (i.e. increased freeboard, cumulative substantial damage/improvements) and sinkhole risk (e.g. carbonate bedrock standards). | 5 | Local Plans and Regulations | Flood Subsidencesinkholes | High | Low | Municipal Budget | Municipality (via Municipal Engineer / NFIP Floodplain Administrator) with support from PEMA, FEMA. LVPCfor Carbonate Bedrock Standard model ordinance. | Short-term | New & Existing |
| **11** | Determine if a Community Assistance Visit (CAV) or Community Assistance Contact (CAC) is needed, and schedule if needed. | 3 | Local Plans and Regulations | Flood  | High | Low | Municipal Budget | NFIPFloodplain Administrator with support from PA DEP,PEMA, FEMA | Short-term (1 year) | N/A |
| **12** | 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 | Local Plans and Regulations | Flood | Medium | Low | Municipal Budget | NFIP Floodplain Administrator | Short-term (depending upon funding) | N/A |
| **13** | 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’s current compliance with the NFIP is established. | 7 | Local Plans and Regulations | Flood | High | Low | Municipal Budget | NFIPFloodplain Administrator with support from PA DEP, PEMA, FEMA | Short-term (1 year) | N/A |
| **14** | Obtain and archive elevation certificates for NFIP compliance. | 8 | Local Plans and Regulations | Flood | Low | Low | Municipal Budget | NFIP Floodplain Administrator | Ongoing | N/A |
| **15** | Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0. | 9 | All Categories | All Hazards | High | Low-High (for 5-year update) | Local Budget, possibly FEMAMitigation 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 |
| **16** | Complete the ongoing updates of the Comprehensive Emergency Management Plans | 10 | Local Plans and Regulations | All Hazards | Medium | Low | Municipal Budget | Municipality with support from PEMA | Ongoing  | New & Existing |
| **17** | Create/enhance/maintain mutual aid agreements with neighboring communities for continuity of operations. | 11 | All Categories | All Hazards | Medium | Low | Municipal Budget | Municipality with support from surroundingmunicipalities and County | Ongoing | New & Existing |
| **18** | 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 Awareness | All Hazards | Low | Medium | Municipal Budget | Municipality with support from County, PEMA, FEMA | Short-term | N/A |
| **19** | 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 Awareness | All Hazards | Medium | Medium | Municipal budget, FEMAHMA grant programs | Municipality with support from County, PEMA | Short – Long- term (depending upon funding) | N/A |
| **20** | Increase storm water drainage capabilities and wetland protection and creation in the Catasauqua Creek Watershed to protect against and handle increased water runoff from large construction projects in neighboring municipalities. This includes improvements to current wall construction to protect public facilities, downstream properties and protection from erosion. This may also encompass upgrading or replacement of bridges over the Catasauqua Creek to handle increased water flows in thewaterway. | 24 | Structure and Infrastructure | Flood, Levee Failure | Medium | $3,000,000 | Tax dollars, grants, private | Borough EMA | Beginning 2018 or depending upon funding | New & Existing |
| **21** | Purchase lands, protect wetlands and purchase equipment to protect municipal water system wells from development encroachment in neighboring municipalities, which affect the capabilities and capacities of the water system along with water quality. | 20 | Structure and Infrastructure | Utility Interruption, Flood, Drought | Medium | $5,000,000 | Tax dollars, water system fees, grants, private | Borough Water Department | Beginning 2018 or depending upon funding | Existing |
| **22** | Increase storm water drainage capabilities and wetland protection and creation in the Lehigh River / Lehigh Canal Watershed to protect against and handle increased water runoff from large, planned, construction projects.This includes but is not limited to debris and obstruction removal from Lehigh Canal and planning for upstream dam failures. | 20 | Natural systems protection | Flood, Dam Failure | Medium | $5,000,000 | Tax dollars, grants, private | Borough EMA | Beginning 2018 or depending upon funding | New & Existing |
| **23** | Create additional emergency water system tie lines to neighboring water systems in the event area construction affects ground water tables and water quality in the Borough of Catasauqua Municipal Water System leaving wells unusable, contaminated, turbid, and decreased or no flow. This also applies to terrorism events on the water system. Enhancements also assist with Drought protection of the water system. | 27 | Structure and Infrastructure | Utility Interruption | High | $5,000,000 | Tax dollars, water system fees, grants, private, DEP | Borough Water Department | Beginning 2018 or depending upon funding | N/A |
| **24** | Increase and enhance all hazard warning system capabilities to provide more accurate and widespread communication to the public during an emergency. This may include construction of a low power AM radio station and locate desirable replacements for no longer available internet based alerting programs and siren systems previously used and no longer functioning. | 19 | Education and Awareness | All Hazards | High | $100,000 | Tax dollars, grants, private | Borough EMA | Beginning 2018 or depending upon funding | N/A |
| **25** | Increase hardening of municipal water system control systems, municipal telephone systems, and municipal emergency power generation systems to protect against cyber-attacks, and other fabricated and natural hazards, which include but are not limited to electromagnetic pulses, geo-magnetic disturbances, seismic activity, utility outages, flooding and supply train concerns. | 18 | Structure and Infrastructure | Utility Interruption, Terrorism | High  | $1,000,000 | Tax dollars, grants, private | Borough EMA | Beginning 2018 or depending upon funding | News & Existing |
| **26** | Increase capabilities and purchase equipment to provide warming and cooling stations, evacuation reception centers and evacuation shelters during but not limited to severe hot and cold weather events, utility outages, terrorism and various other fabricated and non-man-made hazard occurrences. | 27 | Local Plans and Regulations | All Hazards | High | $10,000 | Tax dollars, grants, private | Borough EMA | Beginning 2018 or depending upon funding | N/A |
| **27** | Increase capabilities, knowledge, and public information to plan for, monitor, and respond to climate change and invasive species events. | 4 | Education and Awareness | Drought, Extreme Temperature, Utility Interruption | High | $50,000 | Tax dollars, grants, private, DEP, Dept of Agriculture, Homeland Security | Borough EMA | Beginning 2018 or depending upon funding | N/A |
| **28** | Increase planning, training and response capabilities for responding to acts of terrorism, active shooter, active attacker, multi-casualty incidents, cyber- attacks, and civil-unrest to provide increased security and response capabilities to include municipal facilities, school district facilities, elderly and low income housing facilities, day-care facilities, and health-care facilities and the public located in the Borough of Catasauqua. | 27 | Local Plans and Regulations | Terrorism, Mass Gathering | High | $50,000 | Tax dollars, grants, private, Homeland Security, school district, public housing, DPW | Borough Police Department | Beginning 2018 or depending upon funding | N/A |
| **29** | Increase capabilities, training, knowledge, and public information to plan for, monitor and respond to sinkholes, subsidence, seismic activity and other geologic-related hazards. | 22 | Structure and Infrastructure, Natural Systems Protection, Educationand Awareness | SubsidenceSinkholes, Utility Interruption | High | $100,000 | Tax dollars, grants, private, DEP | Borough Public Works Department | Beginning 2018 or depending upon funding  | N/A |
| **30** | Increase capabilities, equipment, training, knowledge, code enforcement and public information to plan for and respond to structural fires. | 27 | Local Plans and Regulations | Structural Fire | High | $4,000,000 | Tax dollars, grants, private, fire department donations | Borough Fire Department | Beginning 2018 or depending upon funding or status of existing equipment | New & Existing |
| **31** | Increase capabilities, equipment, training, knowledge, code enforcement and public information to plan for, monitor and respond to structural collapse. | 27 | Local Plans and Regulations | Building Collapse, Earthquake, Winter Storm, SubsidenceSinkholes | High | $100,000 | Tax dollars, grants, private, code enforcement fees | Borough Fire Department/Code Enforcement | Beginning 2018 or depending upon funding | New & Existing |
| **32** | Increase capabilities, equipment, training, knowledge, and public information to plan for, monitor and respond to instances of severe weather including but not limited to: high winds, flooding, hailstorms, winter storms, severe cold, severe heat, lightning, hurricanes and tornadoes. | 4 | Local Plans and Regulations | Flood, Hailstorm, Lightening, Wind Storm/TornadoWinter Storm | High | $50,000 | Tax dollars, grants, private | Borough EMA | Beginning 2018 or depending upon funding | N/A |
| **33** | Increase capabilities, equipment, training, knowledge, code enforcement and public information to plan for and respond to flood control and drainage corrective actions on roadways with recurring flooding. | 14 | Structure and Infrastructure | Flood | Medium | $1,000,000 | Tax dollars, grants, private, PennDOT | Borough Public Works Department | Beginning 2018 or depending upon funding  | New & Existing |
| **34** | Increase capabilities, equipment, training, knowledge, and public information to plan for and respond to drought events. This action includes but is not limited to updating the Borough Drought Response Plan and municipal water system operational andcontingency planning and upgrades. | 18 | Structure and Infrastructure | Drought Utility Interruption | High | $100,000 | Tax dollars, grants, private, water system fees, DEP | Borough EMA, Water Department |  Beginning 2018 or depending upon funding  | N/A |
| **35** | Increase capabilities, equipment, training, knowledge, and public information to plan for and respond to nuclear incident facilities accidents or terrorism activities employing nuclear devices. | 23 | Local Plans and Regulations | Nuclear Incident, Terrorism | High | $50,000 | Tax dollars, grants, private, utilities, Homeland Security,PEMA, FEMA | Borough EMA | Beginning 2018 or depending upon funding | N/A |
| **36** | Increase capabilities, equipment, training, knowledge, and public information to plan for and respond to transportation emergencies including but not limited to pipeline accidents, aircraft crashes, rail accidents, mass transportation accidents, bus accidents, school bus accidents. This may also include road or infrastructure improvements to facilitate safe travel and reduce accident occurrences. | 27 | Local Plans and Regulations | Transportation Crash | High | $100,000 | Tax dollars, grants, private, transportation grants (public and private), airport authority grants, FAA grants, US DOT,PennDOT | Borough EMA | Beginning 2018 or depending upon funding | New & Existing |
| **37** | Coordinate with the County Emergency Management Agency and PA Department of Health, which is responsible for setting up points of distribution and providers for immunizations. | 11 | Local Plans and Regulations | Pandemic and Infectious Disease | Medium | Low | Municipal Budget | Municipality, working with County EMA and PA Department of Health | Ongoing | N/A |
| **38** | Devise an employee vaccination and immunization plan to prevent an outbreak within the municipal employee ranks. | 10 | Local Plans and Regulations | Pandemic and Infectious Disease | Medium | Low  | Municipal Budget | Municipality | Short-term | N/A |
| **39** | Devise a municipal continuity of operations plan to keep essential services running in the event that a significant portion of the workforce is affected. | 11 | Local Plans and Regulations | Pandemic and Infectious Disease | Medium | Low | Municipal Budget | Municipality | Short-term | N/A |
| **40** | Devise a public education andoutreach plan regarding disease prevention. | 4 | Education and Awareness | Pandemic and Infectious Disease | High | High | Municipal Budget | Municipality | Ongoing | N/A |
| **41** | Provide education and outreach to residents regarding how to prevent the spread of invasive species, including quarantine procedures. | 4 | Education and Awareness | Invasive Species | High | Low | Municipal Budget | Municipality | Ongoing | N/A |
| **42** | Develop a neighborhood cleanup plan designed to remove discarded tires, trash and other items in which standing water can form. | 27 | Education and Awareness | Invasive Species | High | Low | Municipal Budget | Municipality | Ongoing | N/A |
| **43** | Provide training and education for first responders to ensure effective emergency care. | 27 | Education and Awareness | Drug Overdose | High | Low | Municipal Budget | Municipality | Ongoing | N/A |
| **44** | Provide education and outreach, especially in K-12, regarding drug abuse prevention. | 4 | Education and Awareness | Drug Overdose Crisis | High | Low | Municipal Budget | Municipality/School District | Ongoing | 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