**East Allen Township, Northampton County Annex**

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

|  |  |
| --- | --- |
| **Primary:** | **Alternate:** |
| Brent M. Green  Township Manager  5344 Nor-Bath Boulevard, Northampton, PA 18067  610-262-7961 Extension:  [manager@eatwp.org](mailto:manager@eatwp.org) | Brent Green  Township Manager  5344 Nor-Bath Boulevard, Northampton, PA 18067  610-691-5644, Extension: 11042  [jmilot@hanovereng.com](mailto:jmilot@hanovereng.com) |

**Municipal Profile**

East Allen Township is a rural township located in the western portion of Northampton County. It encompasses an area of 14.4 square miles and has an approximate population of 5,013 (2020 Census). The township is bordered by Moore Township to the north, Allen Township to the west, Hanover Township (Lehigh County) and Hanover Township to the south, Lower Nazareth Township and Upper Nazareth Township to the east, and surround Bath Borough to the north, west, and south in the township’s northeast corner.

The Monocacy Creek flows southward through the eastern half of the township from Moore Township in the north, through Bath Borough, back into the township, and south into Hanover Township on its way to the Lehigh River. The Catasauqua Creek flows southwest from the northwest part of the township to the southwest part of the township and into Allen Township. There is also a normally dry streambed named in 2021 Fort Ralson Run that forms in the area of Airport Road and Locust Road and that runs from the agricultural fields north and east of East Allen Manor. Fort Ralson Run feeds the Catasauqua Creek.

PA Route 512 travels north south in the eastern part of the township, coming north from Hanover Township, passing through Bath Borough, and continuing north into Moore Township. PA Route 987 (Airport Road) comes from the middle of the township’s southern border north to PA Route 329 (Nor-Bath Boulevard), where the two routes combine and travel to the northeast to Bath Borough. PA Route 329 ends in Bath, while PA Route 987 continues through the borough, back into the township, and north into Moore Township. Airport Road continues north from the intersection of PA Routes 987 and 329 in the middle of the township until it reaches PA Route 248 (West Main Boulevard) near the township’s northern border. PA Route 248 enters the township from Bath Borough’s western border and turns northwest, leaving the township at the middle of the township’s northern border with Moore Township.

**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.

|  |  |
| --- | --- |
| Tim Weis, Zoning/Building Code Official  Role: Zoning & Permitting | Louis Figueroa, Emergency Management Coordinator  Role: Administration |
| Gary Mathesz, Public Works Director  Role: Public Works | Hanover Engineering, Municipal Engineer  Role: Administration and Support |
| Brent Green, Township Manager/ Dep. EMC  Role: Administration & Finance | Barry Isett & Associates  Role: Building Code Administration & Inspection |

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.

East Allen relies on the Volunteer Fire and Ambulance companies to provide primary emergency management services. Businesses are primarily informed / notified during the Planning and Permitting phases of their building and occupancy.

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: The Township maintains a website, including email notification, issues seasonal newsletters and has incorporated a digital sign for public awareness and information.

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 | Primarily handled by the Zoning Office and municipal engineer during the planning and permitting. |
| What are the barriers to running an effective NFIP program in the community, if any? | Community FPA | Public awareness and municipal resources. |
| **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? |  | No |
| **3. Regulation** | | |
| When did the community enter the NFIP? | NFIP Community Status Book | Unknown |
| Are the Flood Insurance Rate Maps (FIRMs) digital or paper?  How are residents assisted with mapping? | Community FPA | Both digital and hard copy. |
| Do floodplain regulations meet or exceed FEMA or State minimum requirements?  If so, in what ways? | Community FPA | The local flood plain ordinance was adopted after the most recent update. |
| Describe the permitting process | Community FPA, State, FEMA NFIP | Zoning Officer reviews and permits. |
| **4. Insurance Summary** | | |
| How many NFIP policies are in the community?  What is the total premium and coverage? | State NFIP Coordinator or  FEMA NFIP Specialist | +/- 8/TBD |
| 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 | TBD |
| How many structures are exposed to flood risk within the community? | Community FPA or GIS Analyst | +/- 29 |
| Describe any areas of flood risk with limited NFIP policy coverage | Community FPA or  FEMA Insurance Specialist | 3.7% land area located in 1% Annual Flood. |
| **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.

The Township is primarily rural with the greatest concentration of residential properties along the southerly portion of the township.

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

Other than the businesses along Airport Road and Route 512 corridor, Churches, and Municipal Building, the only areas for visiting populations would be Events at either Bicentennial or Jacksonville Parks.

1. **Economy**

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

Agriculture is a primary economic concern throughout the Township, with business employment primarily concentrated to the Airport Road and Route 512 corridors.

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.

In addition to Federal Floodplain Mapping, the Township Zoning Ordinance creates the Conservation Zone to provide additional regulations for development along sensitive natural features, including streams, wetlands, steep slopes, rock outcroppings, etc., which are also protected in the other Zoning Districts as well.

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.

Approximately 29 structures area located within the 1% annual flood area, with the greatest concentration along the Monocacy Creek.

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

East Allen Township has very limited ownership of utilities within the Township. Water is provided by the City of Bethlehem through a combination of public wells located outside and private wells located within the Township. Sewer is provided by both Bath Borough Municipal Authority, City of Bethlehem, and the Borough of Northampton. The Township owns the Regency at Creekside Meadows Sewer Pump Station and Sanitary Sewer Force Main located along Route 512. Electric is provided by Pennsylvania Power & Light (PPL) and Metropolitan Edison (MetEd). Freight railcar service is provided by Norfolk Southern, with its railroad tracks paralleling Route 512 on the eastern portion of the Township. Due to in’s proximinity to suburban and urban communities, East Allen has multiple providers for both landline and cellular telephone and cable services, and hosts (5) cell towers within the Township. The Township has natural gas in limited parts of the Township and currently has in interstate natural gas line interconnect along Route 512 and pressure reducing station along Locust Road. Storage of energy facilities is conducted at Keystone Cement, which is located between Route 329/987 and Route 512, where hazardous waste, coal, and natural gas is used to operate high temperature kilns that are used in the cement making process.

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

None known

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

Critical facilities are dispersed along the Route 329 and Route 512 corridors.

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

Bicentennial Park is located along a drainage channel in the southeasterly portion of the Township while Jacksonville Park and the Governor Wolfe historic structures are located in and around the Jacksonville area long Jacksonville Road.

**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 | 2023 | X | Township BOS & PC | S |  | Implementation Continues |  |  |
| Capital Improvement Plan | X |  | X | Internal | S |  |  |  | BOS, manager, and department heads |
| Economic Development Plan |  |  |  |  |  |  |  |  |  |
| Continuity of Operations Plan | X | 2012 |  |  | N |  |  |  |  |
| Stormwater Management Plan / Ordinance | X | 2023-2024 | X | Hanover Engineering | S |  |  |  | Plan & Ordinance are being updated in 2024 |
| Open Space Management Plan (or Parks/Rec., Greenways Plan) | X | 2023-2024 | X | Internal | S |  |  |  | Plans are being updated in 2023-2024 |
| Natural Resource Protection Plan | X | 2004 | X | Internal and Hanover Engineering | S |  |  |  | Part of Zoning and SALDO |
| Transportation Plan |  |  |  |  |  |  |  |  |  |
| Historic Preservation Plan |  |  |  |  |  |  |  |  |  |
| Floodplain Management Plan | X | 2014 |  | External | S |  |  |  | Hanover Engineering & Third Party Zoning Officer |
| Farmland Preservation |  | 2023-2024 | X |  |  |  |  |  | Plans are being implemented in 2024 |
| Evacuation Plan | X | 2012 |  | Internal | S |  |  |  |  |
| Disaster Recovery Plan | X | 2012 |  | Internal | S |  |  |  |  |
| Hazard Mitigation Plan | X | 2018 |  | Internal and Hanover Engineering | S |  | N/A |  | Participating in LVPC Update |
| Emergency Operations Plan | X | 10/2022 |  | Internal | S |  |  |  | Plan was updated in 2022 |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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** | Zoning Regulations | X | 2004 | X | Internal and Hanover Engineering | S |  |  |  | Always Updating |
| Floodplain Regulations | X | 2014 |  | External | S |  |  |  | Hanover Engineering & Third Party Zoning Officer |
| NFIP Participation | X | 2001 |  | Internal |  |  |  |  |  |
| Building Code | X |  |  | External | S |  |  |  | Third Party Zoning Officer / BCO |
| Fire Code | X |  | X | External | S |  |  |  | BCO, VFC & Third Party |
| Other | X | 2000 |  | Internal and Hanover Engineering | S |  |  |  | SALDO – Always Updating |

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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** |
| **2. Administrative & Technology** | Planners (with land use / land development knowledge) | X |  | Internal and Hanover Engineering |  |  | Twp. Planning Commission and Hanover Engineering |
| Planners or engineers (with natural and / or human-caused hazards knowledge) | X |  | Hanover Engineering |  |  |  |
| Engineers or professionals trained in building and / or infrastructure construction practices (including building inspectors) | X |  | Hanover Engineering |  |  |  |
| Emergency Manager | X |  | Internal |  |  | Part Time Twp. |
| Floodplain administrator / manager | X |  | External |  |  | Third Party  Zoning Officer |
| Land surveyors | X |  | Hanover Engineering |  |  |  |
| Staff familiar with the hazards of the community | X |  | Internal and Hanover Engineering |  |  |  |
| Personnel skilled in Geographical Information Systems (GIS) and / or FEMA’s HAZUS program | X |  | Hanover Engineering |  |  |  |
| Grant writers or fiscal staff to handle large / complex grants | X |  | Internal |  |  |  |
| 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 |  | Internal |  |  | Board of Sups., Twp. Manager & Sec. / Treasurer |
| Community Development Block Grants (CDBG) | X |  | Internal |  |  | Board of Sups., Twp. Manager & Sec. / Treasurer |
| Special purposes taxes | X |  | Internal |  |  | Board of Sups., Twp. Manager & Sec. / Treasurer |
| Gas / Electricity utility fees |  |  |  |  |  |  |
| Water / Sewer fees | X |  |  |  |  | The Township has accepted dedication of a sewer pump station and sanitary force main. The Township in 2024 is assessing fees for the maintenance & operations, as well as replacement and upgrades. |
| Stormwater utility fees |  |  |  |  |  |  |
| Development impact fees | X |  | Internal |  | The Township has been diligent to require developers investigate and mitigate hazards as part of the SALDO review process. | Board of Sups., Twp. Manager & Sec. / Treasurer |
| General obligation, revenue, and / or special tax bonds |  |  |  |  |  |  |
| Partnering arrangements or intergovernmental agreements | X |  | Internal |  |  | Board of Sups., Twp. Manager & Sec. / Treasurer |
| 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 |  |  |  |  |  |  |
| 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 |  |  | Enhance website capabilities & changeable message sign at Municipal Building |  |  |
| 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. | X |  |  |  |  | Volunteer Emergency Services and various committees |
| 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 |  |  | No |  |
| Administrative and Technical | X |  |  | No |  |
| Financial | X |  |  | No |  |
| Education and Outreach | X |  |  | No |  |

**Known or Anticipated Future Development / Redevelopment**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Development /**  **Property Name** | **Type of Development** | **Number of Structures** | **Location** | **Known Hazard Zone** | **Description / Status** |
| Farmhouse Mews | Residential / Commercial |  | SE Quad of Intersection  of Airport Rd. & Hanoverville Rd. | None | N/A |
| Locust Manor | Residential / Commercial |  | SW Quad of Intersection of Route 512 & Locust Rd. | None | N/A |
| Atiyeh Route 512 Pcop | Residential / Commercial |  | West side of Route 512 south of Steuben Rd. Extension | Contaminated Soils | N/A |
| Sunny Slope Farm  adjacent to Bicentennial | Residential | 84 | Dogwood Rd., east of Bicentennial Park | Flood | Planning |
| Hanover Oaks / Valley View | Residential |  | N. of Hanoverville Rd. partially in  Hanover Twp., N.C. | None | Construction |
| Airport Road Lot 1 | Industrial | 1 | SE Quad of Intersection of Airport Rd. & SR 329 | None | Planning |

**Natural & Non-Natural Event History Specific to East Allen Township**

|  |  |  |
| --- | --- | --- |
| **Type of Event and Date(s)** | **FEMA Disaster #**  **(if applicable)** | **Local Damage(s) or Loss(es)** |
| Snow Related Winter Event | AJA066 | $32,568 Costs submitted for $31,393.15 reimbursement |
| Pennsylvania COVID-19 Pandemic – 1/2020 | DR-4506-PA | Emergency Protective measures to combat COVID-19 Pandemic. |
| Remnants of Hurricane Ida | DR-4618-PA | Assistance to eligible individuals and families affected by this disaster. |

**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** | Township engineering firm is reviewing potential mitigation activities to alleviate flooding in the Bicentennial Park / Shawnee Drive / Munsee Lane / Mohawk Drive / Colony Drive area. |  | X |  |  |  | Alleviate Flooding in Bicentennial Park and downstream area |
| **2** | Monocacy Creek flooding along Route 512 Project raising of the roadway and railroad, replacing the bridges with a higher and longer structures. | X |  |  |  |  | Monocacy Creek Flooding along Route 512 (roadway/bridge) |
| **3** | Conduct Study to determine mitigation activities to alleviate flooding in the area where Monocacy Creek crosses Route 512. | X |  |  |  |  | Study mitigation of Flooding along Route 512 |
| **4** | Study to mitigate Sickle Road  (unimproved road) Heavy rains cause springs to wash out roadway. Determine actions to prevent or minimize issue. |  |  |  |  | X | Investigate Sickle Road Drainage |
| **5** | Improvements to Snyders Church between Airport Rd. and W. Main Blvd. (Rt. 248). Control water flow from neighbor’s property causing road shoulders to wash out, debris clogging pipe under road. |  |  | X |  |  | Snyder’s Church Road Drainage Improvements |
| **6** | Stone Post Rd. Culvert (unimproved stone portion of road) — Heavy rains cause road surface to wash away. |  |  |  |  | X | Stone Post Road Drainage Improvements |
| **7** | Robin Lane Culvert (unimproved road) — Heavy rains cause road surface to wash away. |  |  |  |  | X | Robin Lane Drainage Improvements |
| **8** | Improvements PA Route 248, just east of the intersection with Snyders Church. Water washes over roadway. Enlarge pipe. | X |  |  |  |  | Route 248 East of Snyder’s Church Rd Culvert Replacement |
| **9** | Improvements on PA Route 248, water comes off farmland, follows swale from Robin Lane to Route 248 (at 6159 W. Main Blvd), then crosses in a pipe and over the roadway as pipe cannot handle volume of water into property at 6150.  Enlarge pipe. | X |  |  |  |  | Route 248 at Robin Lane Drainage Improvements |
| **10** | Improvements on PA Route 987, south of Locust Road and north of Jade Lane, storm water comes off farmland and floods over the roadway. |  |  |  |  | X | Develop Traffic Control Plan for Route 512 Flooding. Action not carried through to 2018 Action Plan. |
| **11** | Employ better soil conservation practices to reduce soil erosion and water runoff. |  |  | X |  |  |  |
| **12** | Make visitation of every SARA Tier II facility an annual event by the Fire Department. |  |  | x |  |  |  |
| **13** | 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. |  |  | X |  |  |  |
| **14** | 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 |  |  |  |
| **15** | Devise an employee vaccination and immunization plan to prevent an outbreak within the municipal employee ranks. |  |  | X |  |  |  |
| **16** | 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 |  |  |  |
| **17** | Devise a public education and outreach plan regarding disease prevention. |  |  | X |  |  |  |
| **18** | Provide education and outreach to residents regarding how to prevent the spread of invasive species, including quarantine procedures. |  |  | X |  |  |  |
| **19** | Develop a neighborhood cleanup plan designed to remove discarded tires, trash and other items in which standing water can form. |  |  | X |  |  |  |
| **20** | Provide training and education for first responders to ensure effective emergency care. |  |  | X |  |  |  |
| **21** | 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** | | **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** | Township engineering firm is reviewing potential mitigation activities to alleviate flooding in the Bicentennial Park / Shawnee Drive / Munsee Lane / Mohawk Drive / Colony Drive area. | 14 | Structure & Infrastructure | Flood | Medium | High | HMA Grants and County grant  opportunities;  Private sector | Township  Engineering,  Home Owner | Short-term  (depending on funding) | Existing |
| **2** | Monocacy Creek flooding along Route 512 Project raising of the roadway and railroad, replacing the bridges with a higher and longer structures. | 15 | Structure & Infrastructure | Flood | Medium | High | HMA Grants,  PennDOT  Norfolk  Southern RR | PennDOT  Norfolk  Southern RR | Long-term  (depending on funding) | Existing |
| **3** | Conduct Study to determine mitigation activities to alleviate flooding in the area where Monocacy Creek crosses Route 512. | 15 | Structure & Infrastructure | Flood | Medium | High | Municipal and Private Sector | Home owners | Short-term  (depending on funding) | Existing |
| **4** | Improvements to Snyders Church between Airport Rd. and W. Main Blvd. (Rt. 248). Control water flow from neighbor’s property causing road shoulders to wash out, debris clogging pipe under road. | 15 | Structure & Infrastructure | Flood | Medium | High | FEMA, State,  County Grant opportunities | Public Works with  oversight by  DEP &  NCCD | Long-term  (depending on funding) | Existing |
| **5** | Improvements PA Route 248, just east of the intersection with Snyders Church. Water washes over roadway. Enlarge pipe. | 15 | Structure & Infrastructure | Flood | Medium | High | PennDOT | PennDOT | Long-term  (depending on funding) | Existing |
| **6** | Improvements on PA Route 248, water comes off farmland, follows swale from Robin Lane to Route 248 (at 6159 W. Main Blvd), then crosses in a pipe and over the roadway as pipe cannot handle volume of water into property at 6150. Enlarge pipe. | 15 | Structure & Infrastructure | Flood | Medium | High | PennDOT | PennDOT | Long-term  (depending on funding) | Existing |
| **7** | Employ better soil conservation practices to reduce soil erosion and water runoff. | 14 | Structure & Infrastructure | Flood | Medium | Low | Private | Northampton County  Conservation  District  (NCCD) | Short-term | Existing |
| **8** | Make visitation of every SARA Tier II facility an annual event by the Fire Department. | 23 | Education & Awareness | All hazards | High | Low | Municipal Budget | East Allen  Twp. Fire  Dept., possibly  LEPC | Short-term | New &  Existing |
| **9** | 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. | 3 | Local plans & Regulations | Flood | High | Low -  Medium | Municipal Budget | Municipality  (via Municipal  Engineer/NFIP Floodplain  Administrator) with support from PEMA,  ISO FEMA | Ongoing | New &  Existing |
| **10** | 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 & Regulations | Pandemic and  Infectious  Disease | Medium | Low | Municipal Budget | Municipality, working with  County EMA and PA  Department of Health | Ongoing | N/A |
| **11** | Devise an employee vaccination and immunization plan to prevent an outbreak within the municipal employee ranks. | 27 | Local plans  & Regulations | Pandemic and  Infectious  Disease | High | Low | Municipal Budget | Municipality | Short-term | N/A |
| **12** | 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  & Regulations | Pandemic and  Infectious  Disease | Medium | Low | Municipal Budget | Municipality | Short-term | N/A |
| **13** | Devise a public education and outreach plan regarding disease prevention. | 27 | Education  & Awareness | Pandemic and  Infectious  Disease | High | Low | Municipal Budget | Municipality | Ongoing | N/A |
| **14** | Provide education and outreach to residents regarding how to prevent the spread of invasive species, including quarantine procedures. | 27 | Education  & Awareness | Invasive Species | High | Low | Municipal Budget | Municipality | Ongoing | N/A |
| **15** | Develop a neighborhood cleanup plan designed to remove discarded tires, trash and other items in which standing water can form. | 27 | Education  & Awareness | Invasive Species | High | Low | Municipal Budget | Municipality | Short-term | N/A |
| **16** | Provide training and education for first responders to ensure effective emergency care. | 27 | Local plans  & Regulations | Drug  Overdose  Crisis | High | High | Municipal Budget | Municipality | Ongoing | N/A |
| **17** | Provide education and outreach, especially in K-12, regarding drug abuse prevention. | 27 | Education  & Awareness | Drug  Overdose  Crisis | High | High | 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