



SECTION 9. JURISDICTIONAL ANNEXES

9.20 TOWNSHIP OF MAPLE SHADE

This section presents the jurisdictional annex for the Township of Maple Shade that provides resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions to reduce or eliminate damage to property and people that can be implemented prior to a disaster. Information presented includes a general overview of the municipality, who in the Township of Maple Shade participated in the planning process, an assessment of the Township of Maple Shade’s risk and vulnerability, the different capabilities used in the Township of Maple Shade, and an action plan that will be implemented to achieve a more resilient community.

9.20.1 Hazard Mitigation Planning Team

The Township of Maple Shade identified the hazard mitigation plan primary and alternate points of contact and developed this plan over the course of several months with input from many Township of Maple Shade departments, including Police, Construction, and Administration. The Township Manager represented the community on the Burlington County Hazard Mitigation Planning Partnership and supported the local planning process requirements by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

The following table summarizes municipal officials that participated in the development of the annex and in what capacity. Additional documentation on the municipality’s planning process through Planning Partnership meetings is included in Volume 1, Section 2 (Planning Process) and Appendix C (Meeting Documentation).

Table 9.20-1. Hazard Mitigation Planning Team

| Primary Point of Contact | | Alternate Point of Contact | |
|--------------------------------------|--|----------------------------|---------------------------------------|
| Name/Title: | Susan Danson, Township Manager | Name/Title: | Brian Davis, OEM / Police Sgt. |
| Address: | 200 Stiles Avenue, Maple Shade, NJ 08052 | Address: | 200 Stiles Ave, Maple Shade, NJ 08052 |
| Phone Number: | (856) 779-9610 | Phone Number: | (856) 234-8300 |
| Email: | twpmgr@mapleshade.com | Email: | bdavis@mapleshadepd.com |
| NFIP Floodplain Administrator | | | |
| Name/Title: | Ed Toussaint, Construction Official | | |
| Address: | 200 Stiles Avenue, Maple Shade, NJ 08052 | | |
| Phone Number: | (856) 779-9610 | | |
| Email: | etoussaint@mapleshade.com | | |
| Additional Contributors: | | | |
| Name/Title: | | | |



Method of
Participation:

9.20.2 Municipal Profile

Maple Shade is located in the north-western portion of Burlington County along the Pennsauken Creek. The Township is bordered by Cinnaminson to the north, Moorestown to the east, and Mount Laurel to the south. To the west, Maple shade is bordered by Cherry Hill and Pennsauken in Camden County. According to the U.S. Census Bureau, Maple Shade encompasses 3.8 square miles, of which less than 0.1% of the Township is water.

The community was known as Chester Township and existed essentially as a neighborhood of Moorestown Township. In 1922, the residents of Chester Township voted to separate from Moorestown, electing a Township Committee. The first Municipal Building on Main Street was completed in 1927, and in it was placed the first public library in 1930. In 1945, the community chose to become Maple Shade Township.

In 1975, Township chose by referendum to adopt the Council-Manager (Faulkner Act) form of government under which the government presently operates. Under the Council-Manager form, the council is the legislative body of the municipality but also appoints the positions of Municipal Clerk, Tax Assessor and well as provides for appointments of members of Boards, Commissions and Authorities. Perhaps most importantly, the council appoints a qualified manager to serve as the chief executive.

The mayor serves as the presiding member of the council. The Manager has the full administrative responsibility for the municipality, including appointment of department heads as well as subordinates, preparation and presentation of the budget and the negotiation of contracts.

According to the U.S. Census, the 2020 population for the Township of Maple Shade was 19,980, a 4.4 percent increase from the 2010 Census. Data from the 2021 American Community Survey 5-Year Population Estimates indicate that 14.5 percent is 65 years of age or older, 5.8 percent of the population is 5 years of age or younger, 3.5 percent is non-English speaking, 12.2 percent has a disability, and 9.9 percent is below the poverty level. Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

9.20.3 Jurisdictional Capability Assessment and Integration

The Township of Maple Shade performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume 1, Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment includes the following analyses:

- An assessment of legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.



- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity to withstand hazard events.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of the hazard mitigation analysis, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. The updated mitigation strategy provided an opportunity for the Township of Maple Shade to identify opportunities for integration of mitigation concepts that can be incorporated into municipal procedures.

Planning, Legal, and Regulatory Capability and Integration

The table below summarizes the regulatory tools that are available to the Township of Maple Shade. The comment field provides information as to how the capability integrates hazard mitigation and risk reduction.

Table 9.20-2. Planning, Legal, and Regulatory Capability and Integration

| | Jurisdiction has this? (Yes/No) | Code Citation and Date (code chapter, name of plan, date of plan) | Authority (local, county, state, federal) | Individual / Department / Agency Responsible |
|---|---------------------------------|---|---|--|
| Codes, Ordinances, & Regulations | | | | |
| Building Code | Yes | Chapter 75 Construction Codes, Uniform | State, Local | Construction Official |
| <i>How does this reduce risk?</i> This chapter and the Building Code shall be enforced and administered by the Construction Official as appointed by the Township. This code ensures all buildings are in line with the Uniform Construction Code, as adopted by the Township and the State of New Jersey. | | | | |
| Zoning/Land Use Code | Yes | Chapter 205 Zoning; Chapter 22 Land Use Procedures | Local | Zoning Officer, Zoning Board of Adjustment, Planning Board |
| <i>How does this reduce risk?</i> The code enables where appropriate, flexibility of design and development of land in such a manner as to preserve its natural and scenic qualities, protect areas of meaningful ecological value, reduce flood hazards, facilitate the adequate and economical provision of streets and utilities, minimize negative environmental impacts, improve the aesthetic quality of new residential developments, encourage the conservation of energy, increase recreational opportunities, and otherwise promote the planned and environmentally desirable use of land. | | | | |
| Subdivision Ordinance | Yes | Chapter 178 Subdivisions and Site Plans; Chapter 22 Land Use Procedures | Local | Planning Board |
| <i>How does this reduce risk?</i> It is declared to be the policy of the Township to consider land subdivisions as part of a plan for the orderly, efficient, and economical development of the Township. Land to be subdivided shall be of such character that it can be used safely for building or development purposes without danger to health or peril from fire, flood, or other menace, and without resulting in significant damage to the ecology of the area in which it is located. Land subject to fire, flood or other hazards shall not be subdivided nor developed for residential purposes, nor for such other uses as may increase danger to health, life, or property, or aggravate a flood hazard, but such land may be set aside for uses as shall not involve such danger nor produce unsatisfactory living conditions. | | | | |



| | Jurisdiction has this? (Yes/No) | Code Citation and Date (code chapter, name of plan, date of plan) | Authority (local, county, state, federal) | Individual / Department / Agency Responsible |
|--|---------------------------------|---|---|---|
| Site Plan Ordinance | Yes | Chapter 178 Subdivisions and Site Plans; Chapter 22 Land Use Procedures | Local | Site Plan Review Advisory Board, Planning Board |
| <p><i>How does this reduce risk?</i></p> <p>Approval of a site plan is required for a) the development or redevelopment of any building, structure or lot or portion thereof for a new use; b) the expansion or relocation of any existing use; or c) any change of use of a building, structure or lot or portion thereof. Per the ordinance, a proposed stormwater drainage system shall be adequate to prevent any increase in the rate of surface runoff or otherwise contribute to downstream flooding during a storm of any magnitude, up to and including a one-hundred-year frequency storm.</p> | | | | |
| Stormwater Management Ordinance | Yes | Chapter 174 Stormwater Control; Amended 2021 | Local | Zoning Officer & Township Engineer |
| <p><i>How does this reduce risk?</i></p> <p>The purpose of this article is to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing within this jurisdiction. An identified objective of this ordinance is to minimize increases in the volumes and rates of stormwater runoff from land development activities in order to reduce flooding and streambank erosion.</p> | | | | |
| Post-Disaster Recovery/ Reconstruction Ordinance | No | - | - | - |
| <p><i>How does this reduce risk?</i></p> | | | | |
| Real Estate Disclosure | Yes | Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023 | State | Sellers and Landlords of commercial or residential property |
| <p><i>How does this reduce risk?</i></p> <p>For leases, the law amends the New Jersey Truth-in-Renting Act, N.J.S.A. 46:8-43 et seq., to require every landlord to notify in writing each of the landlord's tenants, prior to lease signing or renewal, whether the property is located in the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area ("100-year floodplain") or Moderate Risk Flood Hazard Area ("500-year floodplain") and if the landlord has actual knowledge that the rental premises or any portion of the parking areas of the real property containing the rental premises has been subjected to flooding. The law does not apply to (1) landlords who lease commercial space or residential dwellings for less than one month, (2) residential dwellings in a premises containing not more than two units, (3) owner-occupied premises containing not more than three units, or (4) hotels, motels, or other guest houses serving transient or seasonal guests for a period of less than 120 days.</p> <p>The model notice is to contain the heading "Flood Risk" and questions for the landlord to answer regarding the landlord's actual knowledge of past flooding of the property. The questions regarding the property being in a FEMA Special or Moderate Risk Flood Hazard Area shall not contain the option for "unknown." To determine how the questions are to be answered, FEMA's current flood insurance rate maps for the leased premises area must be consulted. The landlord will be required to answer whether the rental premises or any portions of the parking areas of the real property containing the rental premises ever experienced any flood damage, water seepage, or pooled water due to a natural flood event and, if so, the number of times that has occurred.</p> <p>The notice to residential tenants must also indicate that flood insurance may be available to renters through FEMA's National Flood Insurance Program to cover their personal property and contents in the event of a flood and that standard renter's insurance does not typically cover flood damage.</p> <p>For sales, the law also amends the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-1 et seq., to require sellers of real property to disclose, on the property condition disclosure statement, whether the property is located in the FEMA Special or Moderate Risk Flood Hazard Area and any actual knowledge of the seller concerning flood risks of the property to the purchaser before the purchaser becomes obligated under any contract for the purchase of the property.</p> <p>The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:</p> | | | | |



| | Jurisdiction has this? (Yes/No) | Code Citation and Date (code chapter, name of plan, date of plan) | Authority (local, county, state, federal) | Individual / Department / Agency Responsible |
|--|---------------------------------------|---|---|---|
| <ul style="list-style-type: none"> Is any or all of the property in the Special Flood Hazard Area ("100-year floodplain") or a Moderate Risk Flood Hazard Area ("500-year floodplain") according to FEMA's current flood insurance rate maps? Is the property subject to any requirement under federal law to obtain and maintain flood insurance on the property? Properties in the Special Flood Hazard Area with mortgages from federally regulated or insured lenders are required to obtain and maintain flood insurance. Have you ever received assistance from, or are you aware of any previous owners receiving assistance from FEMA, the U.S. Small Business Administration, or any other federal disaster flood assistance for flood damage on the property? For properties that have received flood disaster assistance, the requirement to obtain flood insurance passes down to all future owners. Is there flood insurance on the property? A standard homeowner's insurance policy typically does not cover flood damage. Is there a FEMA elevation certificate available for the property? If so, it must be shared with the buyer. An elevation certificate is a FEMA form, completed by a licensed surveyor or engineer, that provides critical information about the flood risk of the property and is used by flood insurance providers to determine the appropriate insurance rating for the property. Have you ever filed a claim for flood damage to the property with any insurance provider? If the claim was approved, what was the amount received? Has the property experienced any flood damage, water seepage, or pooled water due to a natural flood event, such as heavy rainfall, coastal storm surge, tidal inundation, or river overflow? If so, how many times? <p>Not all provisions of this law have become effective at the time of the writing of this plan.</p> | | | | |
| Growth Management | No | - | - | - |
| <i>How does this reduce risk?</i> | | | | |
| Environmental Protection Ordinance | Yes | Chapter 200 Water; Tree Protection Ordinance | Local | Administration |
| <i>How does this reduce risk?</i> | | | | |
| <p>The Township of Maple Shade's ordinance (Chapter 200) has been modified several times, most recently in May of 2012, in order to incorporate water conservation measures. The most significant aspect of this ordinance for water conservation is the tiered water use rate structure. Excess water use is penalized through additional charges.</p> <p>Tree protection falls under Section 178-15.F of the Township Code. Specifically, this section seeks to avoid removal of trees having a caliper of five inches or greater from the property in the process of subdividing, grading, or installing improvements. Where, in the judgment of the Planning Board, such removal is unavoidable, the applicant shall install compensatory trees in such locations and of such size, variety and quantity as the Planning Board shall direct. Compensatory trees are to be provided at a sliding scale, such that larger trees to be removed require more compensation than smaller trees. In the unlikely event that applicants cannot provide the required amount compensatory plantings onsite, they may (a) install a portion of the required compensatory trees on other public lands within the Township; (b) provide a cash contribution in lieu of; or (c) install fewer, larger, or more valuable compensatory trees.</p> | | | | |
| Flood Damage Prevention Ordinance | Yes | Chapter 99 Flood Damage Prevention | Federal, State, Local | Construction Official |
| <i>How does this reduce risk?</i> | | | | |
| <p>It is the purpose of this chapter to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:</p> <ol style="list-style-type: none"> Protect human life and health; Minimize expenditure of public money for costly flood control projects; Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public; Minimize prolonged business interruptions; Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, bridges located in areas of special flood hazard; Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas; Ensure that potential buyers are notified that property is in an area of special flood hazard; and | | | | |



| | Jurisdiction has this? (Yes/No) | Code Citation and Date (code chapter, name of plan, date of plan) | Authority (local, county, state, federal) | Individual / Department / Agency Responsible |
|---|---------------------------------|--|---|--|
| H. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions. | | | | |
| The ordinance needs to be updated to the model code coordinated ordinance. | | | | |
| Wellhead Protection | No | - | - | - |
| <i>How does this reduce risk?</i> | | | | |
| Emergency Management Ordinance | No | - | - | - |
| <i>How does this reduce risk?</i> | | | | |
| Climate Change Ordinance | No | - | - | - |
| <i>How does this reduce risk?</i> | | | | |
| Other | No | - | - | - |
| <i>How does this reduce risk?</i> | | | | |
| Planning Documents | | | | |
| Comprehensive/Master Plan | Yes | Municipal Master Plan, 1982; Reexamined 1988, 1996, 2006, 2016. | Local | Planning Board |
| <i>How does this reduce risk?</i> | | | | |
| The master plan is intended to provide a set of policies for the Township that will guide municipal officials, the planning and zoning boards, and citizens on decisions and regulations within the Township. The plan is a broad policy document that guides the use of lands and future physical, economic, and social development of the Township. | | | | |
| Capital Improvement Plan | Yes | Township Annual Budget | Local | Township Council |
| <i>How does this reduce risk?</i> | | | | |
| Identifies capital projects and equipment purchases, provides a planning schedule, and identifies options for financing the plan. | | | | |
| Disaster Debris Management Plan | No | - | - | - |
| <i>How does this reduce risk?</i> | | | | |
| Floodplain Management or Watershed Plan | No | - | - | - |
| <i>How does this reduce risk?</i> | | | | |
| Stormwater Management Plan | Yes | Municipal Stormwater Management Plan, March 2005; Revised April 2008 | Local | Public Works & Township Engineer |
| <i>How does this reduce risk?</i> | | | | |
| The Municipal Stormwater Management Plan documents the Township's strategy for addressing stormwater management and stormwater-related impacts related to land development. This plan addresses the impacts of land development on groundwater recharge, stormwater quality, and stormwater quantity. The impacts are addressed by incorporating stormwater design and performance standards for new major development, defined as projects that disturb one of more acre of land or projects that would result in 0.25 acres or more of additional impervious coverage. These standards are intended to minimize the adverse impact of stormwater runoff on water quality and water quantity and the loss of groundwater recharge that provide base flow in receiving water bodies, The plan describes long-term operation and maintenance measures for existing and future stormwater facilities. | | | | |
| Stormwater Pollution Prevention Plan | No | - | - | - |
| <i>How does this reduce risk?</i> | | | | |
| Open Space Plan | No | - | - | - |



| | Jurisdiction has this? (Yes/No) | Code Citation and Date (code chapter, name of plan, date of plan) | Authority (local, county, state, federal) | Individual / Department / Agency Responsible |
|--|---------------------------------|---|---|--|
| <i>How does this reduce risk?</i> | | | | |
| Urban Water Management Plan | Yes | Water Conservation and Drought or Water Supply Emergency Management Plan Report for Public Water Supply Systems | Local | Administration |
| <i>How does this reduce risk?</i> The Township completed a Water Conservation and Drought or Water Supply Emergency Management Plan Report for Public Water Supply Systems, last modified in April of 2013. This document identifies water sources, number of water customers, per capita use, and an emergency contact. It also identifies potential sources of unaccounted-for water and areas in need of improvement. | | | | |
| Habitat Conservation Plan | No | - | - | - |
| <i>How does this reduce risk?</i> | | | | |
| Economic Development Plan | No | - | - | - |
| <i>How does this reduce risk?</i> | | | | |
| Shoreline Management Plan | No | - | - | - |
| <i>How does this reduce risk?</i> | | | | |
| Community Wildfire Protection Plan | No | - | - | - |
| <i>How does this reduce risk?</i> | | | | |
| Community Forest Management Plan | Yes | 5-year Community Forestry Management Plan | Local | Administration |
| <i>How does this reduce risk?</i> The Township of Maple Shade adopted a 5-year Community Forestry Management Plan (CFMP) in 2016 to continue management and enhancement of the community forest resource within the confines of the public right-of-ways, parks and community at large. The goals and objectives for this, the first plan developed by Maple Shade Township, are developed to address the current community forest needs of Maple Shade Township. | | | | |
| Transportation Plan | Yes | Municipal Master Plan Circulation Element, 1982; Reexamined 1988, 1996, 2006, 2016; Amended 2010. | Local | Planning Board |
| <i>How does this reduce risk?</i> The Circulation Element of the Master Plan provides a description and analysis of the transportation system that serves Maple Shade, including the street network, streetscape, sidewalks, and pathways. | | | | |
| Agriculture Plan | No | - | - | - |
| <i>How does this reduce risk?</i> | | | | |
| Climate Action/ Resiliency/Sustainability Plan | No | - | - | - |
| <i>How does this reduce risk?</i> | | | | |
| Tourism Plan | No | - | - | - |
| <i>How does this reduce risk?</i> | | | | |
| Business/ Downtown Development Plan | No | - | - | - |
| <i>How does this reduce risk?</i> | | | | |



| | Jurisdiction has this? (Yes/No) | Code Citation and Date (code chapter, name of plan, date of plan) | Authority (local, county, state, federal) | Individual / Department / Agency Responsible |
|---|---------------------------------|---|---|--|
| Other | No | - | - | - |
| <i>How does this reduce risk?</i> | | | | |
| Response/Recovery Planning | | | | |
| Emergency Operations Plan | Yes | Maple Shade Township Emergency Operations Plan, February 2023 | Local | OEM |
| <i>How does this reduce risk?</i> The Emergency Operations Plan aims to assess the Township's ability to respond to emergency and identifies recommendations to improve its capacity to prepare and respond to future events. The plan address both short- and long-term recovery. | | | | |
| Continuity of Operations Plan | No | - | - | - |
| <i>How does this reduce risk?</i> | | | | |
| Strategic Recovery Planning Report | No | - | - | - |
| <i>How does this reduce risk?</i> | | | | |
| Threat & Hazard Identification & Risk Assessment (THIRA) | No | - | - | - |
| <i>How does this reduce risk?</i> | | | | |
| Post-Disaster Recovery Plan | No | - | - | - |
| <i>How does this reduce risk?</i> | | | | |
| Public Health Plan | No | - | - | - |
| <i>How does this reduce risk?</i> | | | | |
| Other | No | - | - | - |
| <i>How does this reduce risk?</i> | | | | |

Development and Permitting Capability

The table below summarizes the capabilities of the Township of Maple Shade to oversee and track development.

Table 9.20-3. Development and Permitting Capability

| Indicate if your jurisdiction implements the following | Yes/No | Comment: |
|---|--------|---------------------|
| Do you issue development permits? • If yes, what department is responsible? | Yes | Construction Office |
| If you do not issue development permits, what is your process for tracking new development? | N/A | - |



| Indicate if your jurisdiction implements the following | Yes/No | Comment: |
|--|--------|---|
| Are permits tracked by hazard area? (For example, floodplain development permits.) | Yes | Floodplain |
| Do you have a buildable land inventory? • If yes, please describe | No | The Township does have a brownfield inventory and prioritization. |
| Describe the level of build-out in your jurisdiction. | N/A | There are areas within the Township available for future development. According to the Township's zoning map, portions of the Township are zoned for Planned Development. |

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Township of Maple Shade and their current responsibilities that contribute to hazard mitigation.

Table 9.20-4. Administrative and Technical Capabilities

| Resources | Available? (Yes/No) | Comments (available staff, responsibilities, support of hazard mitigation) |
|----------------------------------|---------------------|---|
| Administrative Capability | | |
| Planning Board | Yes | <p>The Planning Board has the following duties and power:</p> <ul style="list-style-type: none"> Make and adopt and from time to time amend a Master Plan for the physical development of the Township. Administer provisions of the Township Code relating to the subdivision of land and site plan review. Issue permits for conditional uses. Participate in the preparation and review of programs or plans. Assemble data on a continuing basis. Perform such other advisory duties as assigned. |
| Zoning Board of Adjustment | Yes | <p>The Zoning Board of Adjustment has the following duties and power:</p> <ul style="list-style-type: none"> Hear and decide appeals where it is alleged by the appellant that there is error in any order, requirement, decision, or refusal made by an official. Hear and decide requests for interpretation of the Zoning Map or Chapter 205, Zoning. Grant a variance. Direct issuance of a permit for a building or structure in the bed of a mapped street or public drainageway, flood control basin or public area. Direct issuance of a permit for a building or structure not related to a street. |



| Resources | Available? (Yes/No) | Comments (available staff, responsibilities, support of hazard mitigation) |
|---|------------------------|---|
| | | <ul style="list-style-type: none"> Grant, to the same extent and subject to the same restrictions as the Planning Board, subdivision or site plan approval or conditional use approval. |
| Planning Department | No | - |
| Mitigation Planning Committee | No | - |
| Environmental Board/Commission | Yes | The Green Team assists the Township Council in outlining the long- and short-term goals for Maple Shade to improve and preserve the three elements of a sustainable community: environment, society and economy and recommends strategies for implementing measures to meet these goals. The Green Team consists of seven regular voting members, and five nonvoting members. |
| Open Space Board/Committee | No | - |
| Economic Development Commission/Committee | Yes | <p>The Business and Economic Development Commission works to:</p> <ul style="list-style-type: none"> Study the future of all Highway Commercial, Commercial, Business Districts and Downtown areas regarding its economic growth and development. Develop plans for the redevelopment of the Downtown Business District. Advise the business community on improvements requiring private sector action. Advise the Township Council on improvements requiring local government action. Evaluate potential redevelopment opportunities and assist in the coordination of redevelopment activities in the Township business districts and foster closer working relationships among all interested segments of the Maple Shade business community. |
| Public Works/Highway Department | Yes | The Public Works Department is responsible for the streets, streetlighting, storm drainage systems, all Township-owned or -leased property and buildings, parks and playgrounds, and shade trees. The Department provides the construction reconstruction, maintenance, and repair for all public streets, storm sewers, and drainage areas. The Department maintains all municipal streets, including snow removal. Public Works also provides the pruning, trimming, removal, and planting of shade trees. |
| Construction/Building/Code Enforcement Department | Yes | The Construction Office issues permits and enforces the Uniform Construction Codes within the Township. |
| Emergency Management/Public Safety Department | Yes | The Township's Office of Emergency Management exists to serve the emergency needs of the community whether it be a natural disaster, major storm system, long-term power outages, chemical or hazardous material incident, or terrorist threat. |



| Resources | Available? (Yes/No) | Comments (available staff, responsibilities, support of hazard mitigation) |
|---|------------------------|--|
| Warning Systems / Services (mass notification system, outdoor warning signals, etc.) | Yes | The Township utilizes Nixle to push warnings, alerts, and notifications to its residents. |
| Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.) | Yes | The Public Works Department is responsible for the streets, streetlighting, storm drainage systems, all township-owned or -leased property and buildings, parks and playgrounds, and shade trees. The Department provides the construction reconstruction, maintenance, and repair for all public streets, storm sewers, and drainage areas. The Department maintains all municipal streets, including snow removal. Public Works also provides the pruning, trimming, removal, and planting of shade trees. |
| Mutual aid agreements | Yes | Mutual Aid with Burlington County for local services such as road maintenance, tree trimming, DPW related |
| Human Resources Manual <i>e.g., Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?</i> | Yes | No job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk. |
| Other | No | - |
| Technical/Staffing Capability | | |
| Planners or engineers with knowledge of land development and land management practices | Yes | Available through Township Engineer |
| Engineers or professionals trained in building or infrastructure construction practices | Yes | Available through Township Engineer |
| Planners or engineers with an understanding of natural hazards | Yes | Available through Township Engineer |
| Staff with expertise or training in benefit/cost analysis | No | - |
| Professionals trained in conducting damage assessments | Yes | Construction Official & Engineer |
| Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications | Yes | Available through Township Engineer |
| Environmental scientist familiar with natural hazards | Yes | Available through Township Engineer |
| Surveyor(s) | Yes | Available through Township Engineer |
| Emergency Manager | Yes | The Township's Office of Emergency Management exists to serve the emergency needs of the community whether it be a natural disaster, major storm system, long-term power outages, chemical, or hazardous material incident or terrorist threat. |
| Grant writer(s) <i>Consider the following - Are data and maps from the HMP used to support documentation in grant applications?</i> | Yes | Varies by department and grant topics, often a department staff member. |
| Resilience Officer | Yes | Maple Shade Police Department |
| Other (this could include stormwater engineer, environmental specialist, etc.) | No | - |



Fiscal Capability

The table below summarizes financial resources available to the Township of Maple Shade.

Table 9.20-5. Fiscal Capabilities

| Financial Resources | Accessible or Eligible to Use? (Yes/No) |
|---|--|
| Community development Block Grants (CDBG, CDBG-DR) | Yes |
| Capital improvements project funding | Yes |
| Authority to levy taxes for specific purposes | Yes |
| User fees for water, sewer, gas, or electric service | Yes |
| Impact fees for homebuyers or developers of new development/homes | No |
| Stormwater utility fee | No |
| Incur debt through general obligation bonds | Yes |
| Incur debt through special tax bonds | Yes |
| Incur debt through private activity bonds | No |
| Withhold public expenditures in hazard-prone areas | Yes |
| Other federal or state Funding Programs | Yes |
| Open Space Acquisition funding programs | Yes |
| Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution]) | No |

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Township of Maple Shade.

Table 9.20-6. Education and Outreach Capabilities

| Outreach Resources | Available? (Yes/No) | Comment: |
|---|------------------------|--|
| Public information officer or communications office | Yes | Both within the Police Department and Manager's Office |
| Personnel skilled or trained in website development | Yes | Contracted with an outside IT Company |
| Hazard mitigation information available on your website | No | - |
| Social media for hazard mitigation education and outreach | Yes | The Township and its Police, EMS, and Fire Departments all have social media platforms which can be utilized to disperse hazard mitigation education and outreach. |
| Citizen boards or commissions that address issues related to hazard mitigation | Yes | The Maple Shade Green Team, in cooperation with the Sustainable Maple Shade work together at town events to distribute literature/handouts (instructional lectures). |
| Warning systems for hazard events | Yes | The Township utilizes Nixle to push warnings, alerts, and notifications to its residents. |
| Natural disaster/safety programs in place for schools | No | The Green Team works with schools to conduct a Green Fair. |
| Does the jurisdiction have any public outreach mechanisms / programs in place to inform | Yes | The Township utilizes its monthly newsletter and social media pages to inform residents |



| Outreach Resources | Available? (Yes/No) | Comment: |
|--|------------------------|----------|
| citizens on natural hazards, risk, and ways to protect themselves during such events? <ul style="list-style-type: none"> If yes, please describe. | | |

Community Classifications

The table below summarizes classifications for community programs available to the Township of Maple Shade.

Table 9.20-7. Community Classifications

| Program | Participating? (Yes/No) | Classification (if applicable) | Date Classified (if applicable) |
|---|----------------------------|-----------------------------------|------------------------------------|
| Community Rating System (CRS) | No | - | - |
| Building Code Effectiveness Grading Schedule (BCEGS) | No | - | - |
| Public Protection (ISO Fire Protection Classes 1 to 10) | Yes | 4 | 2017 |
| Storm Ready Certification | No | - | - |
| Firewise Communities classification | No | - | - |
| New Jersey Sustainable Jersey Community | Yes | Silver | October 16, 2023 |
| Other | No | - | - |

Note:

- N/A Not applicable
- NP Not participating
- Unavailable

Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2014). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. The table below summarizes the adaptive capacity for each identified hazard of concern and the jurisdiction’s capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement.

Table 9.20-8. Adaptive Capacity

| Hazard | Adaptive Capacity – Strong/Moderate/Weak |
|------------------|--|
| Dam Failure | Moderate |
| Disease Outbreak | Strong |
| Drought | Moderate |
| Earthquake | Moderate |



| Hazard | Adaptive Capacity – Strong/Moderate/Weak |
|-----------------------|--|
| Extreme Temperatures | Strong |
| Flood | Moderate |
| Severe Weather | Moderate |
| Severe Winter Weather | Strong |
| Wildfire | Moderate |

9.20.4 National Flood Insurance Program (NFIP) Compliance

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the NFIP.

NFIP Floodplain Administrator (FPA)

Ed Toussaint, Construction Official

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Township of Maple Shade.

Table 9.20-9. NFIP Summary

| Active Policies | Total Premium + Policy Fee | Number of Losses | Total Net Payment | Repetitive Loss Properties |
|-----------------|----------------------------|------------------|-------------------|----------------------------|
| 21 | \$33,910 | 8 | \$260,619.32 | 1 |

Source: NFIP 2023

Notes: Data current as of October 2023

RL Repetitive Loss

SRL Severe Repetitive Loss

RL FMA Definition Any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on the average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.

RL NFIP Definition Any insurable building for which two or more claims of more than \$1,000 were paid by the National Flood Insurance Program (NFIP) within any rolling ten-year period, since 1978.

Flood Vulnerability Summary

The following table provides a summary of the NFIP program in the Township of Maple Shade.

Table 9.20-10. NFIP Summary

| NFIP Topic | Comments |
|---|---|
| Flood Vulnerability Summary | |
| Describe areas prone to flooding in your jurisdiction. <ul style="list-style-type: none"> Do you maintain a list of properties that have been damaged by flooding? | Route 73 North adjacent to the Pennsauken Creek No |
| Do you maintain a list of property owners interested in flood mitigation? <ul style="list-style-type: none"> How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)? | No Unknown |
| Are any RiskMAP projects currently underway in your jurisdiction? <ul style="list-style-type: none"> If so, state what projects are underway. | No |



| NFIP Topic | Comments |
|---|---|
| <p>How do you make Substantial Damage determinations?</p> <ul style="list-style-type: none"> How many were declared for recent flood events in your jurisdiction? | <p>If the cost of repairing the structure is 50 percent or more of its market value before the disaster, it is considered substantially damaged. Land value is not a consideration; the determination is based strictly on the value of the damaged structure.</p> <p>Unknown</p> |
| <p>How many properties have been mitigated (elevation or acquisition) in your jurisdiction?</p> <ul style="list-style-type: none"> If there are mitigated properties, how were the projects funded? | No |
| <p>Do your flood hazard maps adequately address the flood risk within your jurisdiction?</p> <ul style="list-style-type: none"> If not, state why. | Yes |
| NFIP Compliance | |
| What local department is responsible for floodplain management? | Construction Official |
| Are any certified floodplain managers on staff in your jurisdiction? | No |
| Do you have access to resources to determine possible future flooding conditions from climate change? | No |
| <p>Does your floodplain management staff need any assistance or training to support its floodplain management program?</p> <ul style="list-style-type: none"> If so, what type of assistance/training is needed? | Yes, any available training |
| Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability) | Permit review, inspections |
| How do you determine if proposed development on an existing structure would qualify as a substantial improvement? | Township Engineer evaluation |
| What are the barriers to running an effective NFIP program in the community, if any? | Staffing, funding |
| <p>Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed?</p> <ul style="list-style-type: none"> If so, state the violations. | No |
| When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)? | Unknown |
| <p>What is the local law number or municipal code of your flood damage prevention ordinance?</p> <ul style="list-style-type: none"> Have you adopted NJDEP's Model Code Coordinated Ordinance? What is the date that your flood damage prevention ordinance was last amended? | <p>Chapter 99</p> <p>No</p> <p>Last amended 2017</p> |
| <p>Does your floodplain management program meet or exceed minimum requirements?</p> <ul style="list-style-type: none"> If exceeds, in what ways? | Meets the minimum requirements |
| Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning | Township has a Site Plan Review Committee |



| NFIP Topic | Comments |
|--|----------|
| board consider efforts to reduce flood risk when reviewing variances such as height restrictions? | |
| Does your community plan to join the CRS program or is your community interested in improving your CRS classification? | No |

9.20.5 Growth/Development Trends

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction’s overall risk to its hazards of concern. The table below summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development.

Table 9.20-11. Number of Building Permits for New Construction

| Type of Development | 2018 | | 2019 | | 2020 | | 2021 | | 2022 | |
|---|-------|-------------|-------|-------------|-------|-------------|-------|-------------|-------|-------------|
| Number of Building Permits for New Construction Issued Since the previous HMP* (total/within regulatory floodplain) | | | | | | | | | | |
| | Total | Within SFHA |
| Single Family | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Multi-Family | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other (commercial, mixed-use, etc.) | 4 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 3 | 0 |
| Total Permits Issued | 4 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 3 | 0 |

SFHA Special Flood Hazard Area (1% annual chance flood event)

* Only location-specific hazard zones or vulnerabilities identified.

Table 9.20-12. Recent and Expected Future Development

| Property or Development Name | Type (e.g., Res., Comm.) | # of Units / Structures | Address and Parcel ID | Known Hazard Zone(s) | Description/Status of Development |
|--|--------------------------|-------------------------|------------------------|----------------------|--|
| Recent Major Development from 2019 to Present | | | | | |
| Maple Shade Self Storage | Commercial | 1 | 3030 Route 73 North | None | 3 Story Self Storage Building |
| Known or Anticipated Major Development in the Next Five (5) Years | | | | | |
| Volcano Steakhouse & Grill | Commercial | 1 | 114-116 E. Main Street | None | Restaurant -permits complete |
| RPM Barrons Building | Mixed Use | 1 | 105 East Main Street | None | Mixed Use Building (60 Units & 8,000sqft of commercial/retail) - currently in permitting phase |



9.20.6 Jurisdictional Risk Assessment

The hazard profiles in Volume 1, Section 4 (Risk Assessment) provide detailed information regarding each plan participant’s vulnerability to the identified hazards. Section 4.2 (Methodology) and Section 4.4 (Hazard Ranking) provide detailed summaries for the Township of Maple Shade’s risk assessment results and data used to determine the hazard ranking discussed later in this section.

Hazard area extent and location maps provided below illustrate the probable areas impacted within the jurisdiction based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps were generated only for those hazards that can be identified clearly using mapping techniques and technologies and for which the Township of Maple Shade has significant exposure. The maps also show the location of potential new development, where available.

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Figure 9.20-1. Township of Maple Shade Flood and Sea Level Rise Hazard Area Extent and Location Map

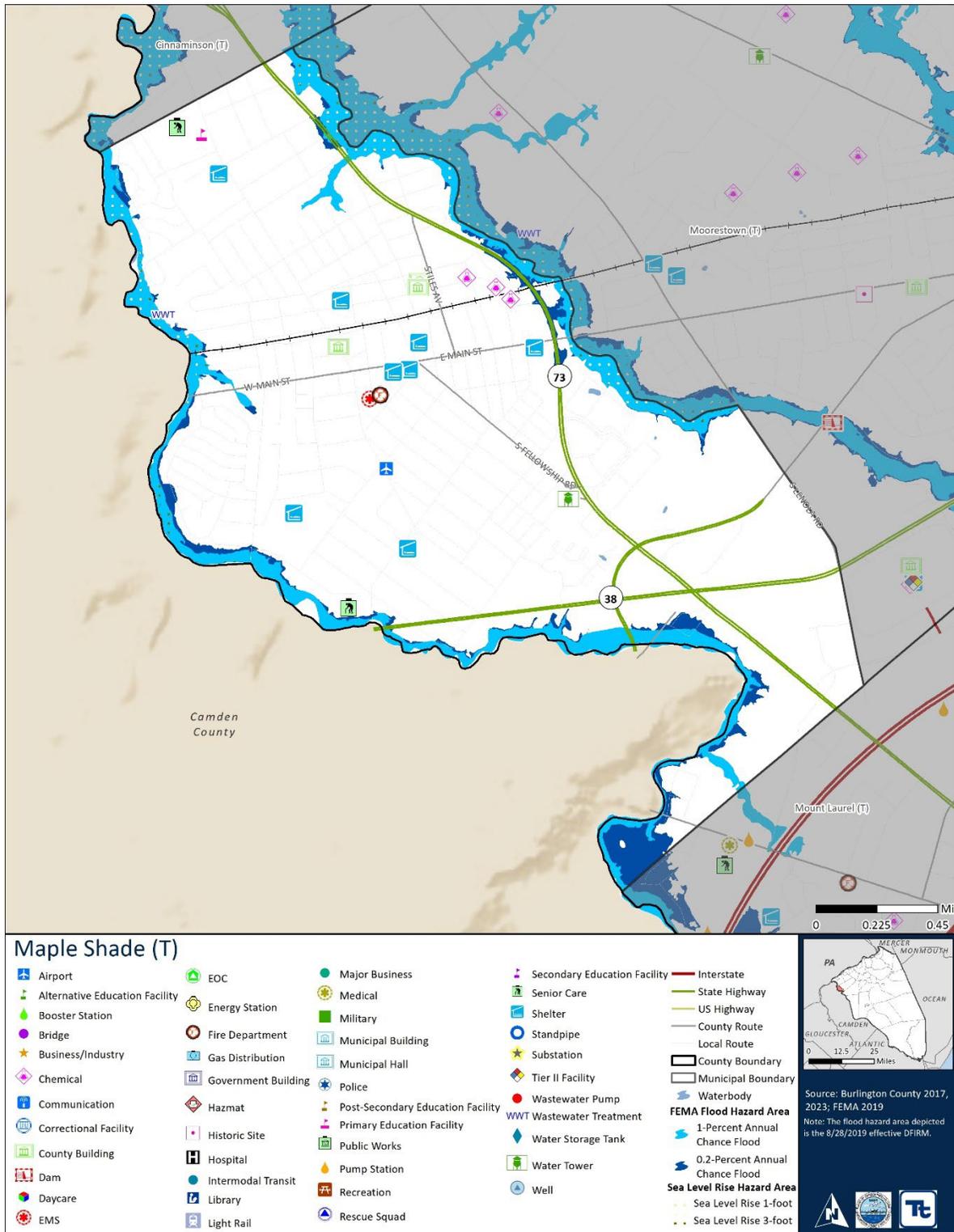
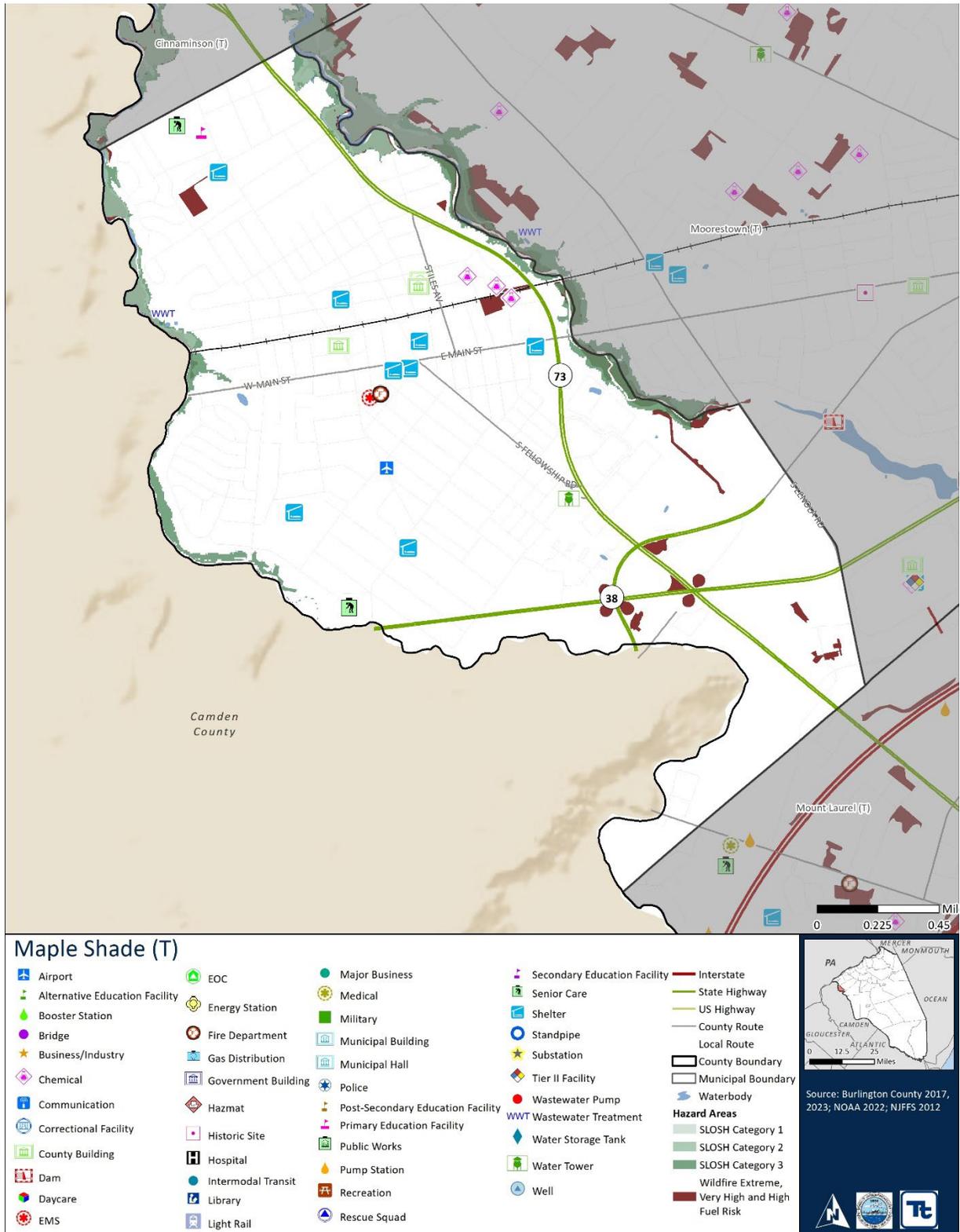


Figure 9.20-2. Township of Maple Shade SLOSH and Wildfire Hazard Area Extent and Location Map





Hazard Event History

Burlington County has a history of natural and non-natural hazard events, as detailed in Volume I, Section 4 (Risk Assessment). A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities.

The Township of Maple Shade’s history of federally declared (as presented by FEMA) and significant hazard events [as presented in NOAA-National Centers for Environmental Information (NCEI)] is consistent with that of the County. The table below provides details regarding municipal-specific loss and damages the Township of Maple Shade experienced during hazard events since the last hazard mitigation plan update. Information provided in the table below is based on reference material or local sources.

Table 9.20-13. Hazard Event History Since 2019

| Dates of Event | Event Type (Disaster Declaration if applicable) | County Designated? | Summary of Event | Municipal Summary of Damages and Losses |
|------------------|---|--------------------|--|---|
| March 6-7, 2018 | Severe Winter Storm (DR-4368) | Yes | Banding and thundersnow produced pockets of heavier snow in the western sections of the area, closer to the Delaware River. The snow contained large amounts of liquid, making it heavy and wet. This resulted in downed trees, limbs, and wires, leading to numerous power outages across portions of New Jersey. | Although the County was impacted the Township did not experience damages or losses from this event. |
| August 13, 2018 | Flash Flood | No | Heavy rain resulted in widespread flash flooding. Heavy rain resulted in widespread roadway flooding in Palmyra, Maple Shade, and Moorestown. Sections of Route 73 and Route 38 were closed due to flooding. | Heavy rain resulted in widespread roadway flooding |
| April 26, 2019 | Thunderstorm Wind | No | Severe storms caused widespread wind damage. Tree and powerline damage was observed in Maple Shade, Willingboro, and Mansfield. A downed tree blocked lanes of State Highway 38. | Tree and powerline damage |
| June 19-20, 2019 | Flash Flood | No | Showers and thunderstorms produced heavy rainfall and flash flooding. Rainfall amounts of 3 to near 6 inches were reported, causing significant flash flooding. Widespread roadway flooding occurred in Burlington City, Burlington Township, Pemberton Township, Southampton, Medford, | Roadway flooding |



| Dates of Event | Event Type (Disaster Declaration if applicable) | County Designated? | Summary of Event | Municipal Summary of Damages and Losses |
|------------------------------------|---|--------------------|--|---|
| | | | Evesham, Maple Shade, and Moorestown, resulting in several road closures. A few vehicles were trapped temporarily in the flood waters. | |
| January 20, 2020 – May 11, 2023 | Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ) | Yes | Burlington County accounted for 115,985 positive cases of COVID-19 in the State of New Jersey, and 1,265 of the reported deaths. A total of 991,269 vaccinations were delivered in the County to both residents and non-residents. | Municipal Building closed March 2020 to June 2020. Staff flexed time, rotated shifts. Internal changes to the building made to ensure social distancing and a safe environment. |
| August 12, 2020 | Flash Flood | No | Thunderstorms brought locally heavy rain; totals were as high as 2 to 4 inches. Several water rescues took place in Maple Shade. NJ Route 38 was closed near South Lenola Road in Maple Shade. | Route 38 is a State Highway. Coordination with NJDOT to investigate drainage and basins. |
| April 30, 2020 | High Wind | No | Strong wind gusts produced tree and utility damage. A large tree down was reported in Maple Shade. Fencing was blown down in Delran. Some power outages also occurred in the area, likely due to utility damage from high winds. | Large tree down |
| August 4, 2020 | Tropical Storm Isaias (DR-4574-NJ) | Yes | Tropical Storm Isaias brought high winds and heavy rain to Burlington County; some areas of the County reported more than 6 inches over several hours. Burlington County Central Communications fielded over 400 emergency calls and 1,400 non-emergency calls, many for flooded basements and residences. | Although the County was impacted, the Township did not incur damages or losses from this event. |
| July 12, 2021 | Thunderstorm Wind | No | Scattered to widespread thunderstorms developed; some of the storms became severe. Trees and wires downed were reported in Moorestown, Maple Shade, Springfield, Willingboro, Florence, Beverly, Fieldsboro, Mansfield, Palmyra, and Riverton. | Trees and wires downed |



| Dates of Event | Event Type (Disaster Declaration if applicable) | County Designated? | Summary of Event | Municipal Summary of Damages and Losses |
|---------------------|--|--------------------|--|---|
| September 1-3, 2021 | Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ) | Yes | The remnants of Hurricane Ida produced heavy rainfall, flash floods, and a tornado (EF-1) that moved through Edgewater Park, Beverly, Burlington Township and Burlington City. Rainfall totals exceed 3 inches in parts of County; 4 water rescues occurred due to flash flooding. | Although the County was impacted, the Township did not incur damages or losses from this event. |

Source: FEMA 2023, NOAA NCEI 2023

Notes:

DR Major Disaster Declaration (FEMA)

EM Emergency Declaration (FEMA)

FEMA Federal Emergency Management Agency

N/A Not applicable

Hazard Ranking and Vulnerabilities

The hazard profiles in Volume 1, Section 4 (Risk Assessment) have detailed information regarding each plan participant’s vulnerability to the identified hazards. The following summarizes the Township of Maple Shade’s risk assessment results and data used to determine the hazard ranking.

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Volume 1, Section 4 (Risk Assessment). The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; and community capabilities to address the hazard and changing future climate conditions. Mitigation action development uses the inputs from the evaluation to target those hazards with highest level of concern.

As discussed in Volume 1, Section 4.4 (Hazard Ranking), each participating jurisdiction has differing degrees of risk exposure and vulnerability compared with the County as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Township of Maple Shade. The Township of Maple Shade reviewed the County hazard risk/vulnerability risk ranking table and individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Township of Maple Shade indicated the following:

- The Township changed the flood hazard ranking from low to medium due to the flooding issues stemming from the Pennsauken Creek North Branch.



- The Township agreed with the remainder of the calculated hazard rankings.

Table 9.20-14. Hazard Ranking Input

| Hazard | Hazard Ranking – High/Medium/Low |
|-----------------------|----------------------------------|
| Dam Failure | Low |
| Disease Outbreak | Medium |
| Drought | Low |
| Earthquake | Low |
| Extreme Temperatures | Medium |
| Flood | Medium |
| Severe Weather | High |
| Severe Winter Weather | Medium |
| Wildfire | Low |

Critical Facilities

The table below identifies critical facilities and lifelines in the community located in the 1-percent and 0.2-percent floodplain.

Table 9.20-15. Potential Flood Exposure of Critical Facilities and Community Lifelines

| Name | Type | Exposure | |
|--|------|----------|------------|
| | | 1% Event | 0.2% Event |
| No critical facilities identified in the floodplain. | | | |

Source: Burlington County 2023; Burlington County Planning Partnership 2023; FEMA 2019

Identified Issues

After review of the Township of Maple Shade’s hazard event history, hazard rankings, jurisdiction specific vulnerabilities, hazard area extent and location, and current capabilities, the Township of Maple Shade identified the following vulnerabilities within their community:

- A recent audit of New Jersey’s model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA’s review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are: the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance. There are multiple flood prone areas throughout the Township, including near the Main Street overpass (Pennsauken Creek North Branch), and Windsor and Roland Avenues (Pennsauken Creek South Branch).
- Major disaster events can result in large amounts of debris that overwhelm normal trash collection operations. Depending on the amount generated, temporary staging areas for debris collection may



be needed. The municipality does not have a disaster debris management plan in place. During a disaster that results in debris, the municipality A plan with outlined responsibilities is needed to adequately address post-disaster cleanup operations.

- The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
- There are multiple flood prone areas throughout the Township, including near the Main Street overpass (Pennsauken Creek North Branch), and Windsor and Roland Avenues (Pennsauken Creek South Branch).
- State highways Route 38 and Route 73 in the Township will flood during severe, heavy rainfall, partially due to poor drainage.
- The Township is exposed to hazardous materials through fixed facility sites and materials in transport. Hazardous materials, if exposed to certain conditions, can create risk. The Conrail, which can transport hazardous materials, goes through the Township. There is a chemical plant on Rt. 73 which has a history of explosions and vapor cloud releases. Colonial Pipeline branch comes into the Township by Pennsauken Creek.
- Critical facilities in the Township, such as the EMS facility, do not have back-up power to ensure continuity of operations.
- Various plans in the Township do not have hazard mitigation principles integrated into the plans.
- Repetitively flooded properties place an undue stress on the property owner and Township and efforts should be made to mitigate them. The Township currently has one repetitive loss property but other properties may have sustained flood damages.

**This issue was identified as a specific area of concern based on resident response to the Burlington County Hazard Mitigation public survey.*

9.20.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and prioritizes actions to address over the next five years.

Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2019 HMP. Actions that are in progress are carried forward and combined with new actions as part of this plan update and are included in the tables with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such and previously presented in the 'Capability Assessment' earlier in this annex.



Table 9.20-16. Status of Previous Mitigation Actions

| Project # | Project | Responsible Party | What is the status? (e.g., In Progress, No Progress, Ongoing Capability, or Completed) If in progress or completed, please describe the funding source, cost and who is implementing. | If you did not complete the action, should the action be included in the 2024 HMP (i.e., there is still a need, this is still a priority)? | | |
|-----------------------|---|---|---|--|---|--|
| | | | | Yes/No | If Yes, please describe the original problem (i.e., hazard, location, historic losses) | If Yes, identify the responsible department/person to implement the project. |
| MS-1 (former MS-1) | Conduct further studies to identify areas prone to flooding throughout the Township and identify potential properties for elevation or acquisition | Maple Shade Township | No Progress | Yes | There are multiple flood prone areas throughout the Township. | Maple Shade Township Administration |
| MS-2 (former MS-5) | Obtain and install backup power sources at critical facilities. | Municipality with support from County, NJOEM and FEMA | No Progress | Yes | Critical facilities in the Township do not have back-up power to ensure continuity of operations. | Municipality Engineering with support from County, NJOEM and FEMA |
| MS-3 | During future updates of the Master Plan, Floodplain Management Plan, or the Emergency Operation Plan, work to integrate hazard mitigation principles and recommendations into the plans. Additionally, use these hazard mitigation principles and plan recommendations to update local building and zoning codes to create a more resilient community. | Municipality | No Progress | Yes | Various plans in the Township do not have hazard mitigation principles integrated into the plans. | Administration |
| MS-4 | The Township will promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, specifically those that have been identified as Repetitive Loss (RL) and Severe Repetitive Loss (SRL). At risk areas include: <ul style="list-style-type: none"> Regent Ave Route 73 | Municipality with support from County | No Progress | Yes | Repetitively flooded properties place an undue stress on the property owner and Township and efforts should be made to mitigate them. | Floodplain Administrator |



| Project # | Project | Responsible Party | What is the status? (e.g., In Progress, No Progress, Ongoing Capability, or Completed) If in progress or completed, please describe the funding source, cost and who is implementing. | If you did not complete the action, should the action be included in the 2024 HMP (i.e., there is still a need, this is still a priority)? | | |
|-----------|--|-------------------|---|--|--|--|
| | | | | Yes/No | If Yes, please describe the original problem (i.e., hazard, location, historic losses) | If Yes, identify the responsible department/person to implement the project. |
| | Alternatives would include acquisition/relocation or elevation depending on feasibility, and the completion of initiative is dependent on funding, benefits versus cost, and willing participation of property owners. | | | | | |

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Additional Mitigation Efforts

In addition to the mitigation initiatives completed in the table above, the Township of Maple Shade identified the following mitigation efforts completed since the last HMP:

- During the last town clean up Sustainable Maple Shade and the township water utilities, took participants out a flood plain site to talk about the trees we planted and why it's important not just to the environment but to the Township. Maple Shade is along the Pennsauken Creek and suffers lots of flooding. By planting the trees, the some 58 residents who came out learned how the trees will benefit the Township by helping reduce flooding in the area. The residents cleaned up around the trees thus learning that keeping the area free from debris will go a long way in preventing floods. The event was promoted via the Township's Nixle and flyers.
- Maple Shade Clean Communities and Sustainable Maple Shade rolled out an adopt a drain program in 2023. The program was advertised using the attached flyer which has a google link for residents to adopt a storm drain. Once adopted, drains will be mapped on the google map. Residents will receive a kit from us which includes 13 gallon trash bags with handles, (1) Trash Grabber, (1) Dust pan and (1) hand brush, (1) Pair of safety Gloves, (1) Safety Vest, (1) Blinking safety light, (1) Maple Shade Adopt-A-Drain branded drawstring bag to hold all kit contents.
- On April 13, 2020, Maple Shade was awarded a Sustainable Jersey Grant funded by the PSEG Foundation for \$10,000 to prepare its first Natural Resource Inventory (NRI). The Township enlisted the services of an individual associated with the Burlington County Bridge Commission to prepare the grant application. CME Associates prepared the NRI.
- The Township's Water Conservation Education program included an interactive game played at the annual Green Fair and an addition to the township's website with residential water conservation tips being promoted at both the Green Fair and on social media accounts. Working closely with Woodard and Curran, who handles the Township's water, handouts for residents with water conservation tips and information on the upgraded water monitoring system to make sure residents are not wasting water or money. The program materials reached hundreds of residents and the Township hopes there will be increase in water conservation among residents.
- In December, 2019 the Township applied for and received a grant from The Nature Conservancy under their "Roots for Rivers" program, in cooperation with Sustainable Jersey, to plant 200 seedlings along municipal-owned land along the South Branch Pennsauken Creek. Planting occurred in the fall of 2020 by volunteers over several weekends with maintenance performed in Spring and Fall 2020.
- In 2022 the Township received an NJ Urban and Community Forestry (NJUCF) Stewardship Grant from the New Jersey Forest Service to implement a Tree Hazard Analysis/Inventory throughout the Township. The grant was for \$10,987.50 with a \$3,662.50 match for a project total of \$14,650. The inventory commenced in January, 2023 and the community was informed via the Maple Shade e-newsletter. The inventory identifies existing tree hazards on municipal properties and rights-of-ways,



and evaluate risks posed by structural defects, disease, and pests. The data collection and a final report to fulfill the NJUCF grant requirements have been completed.

Since the adoption of the County’s first HMP, the Township of Maple Shade has made significant mitigation progress in the following areas:

- Maintenance policies and procedures

Proposed Hazard Mitigation Initiatives for the HMP Update

The Township of Maple Shade participated in a mitigation action workshop in October 2023 and was provided the following FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards: FEMA 551 ‘Selecting Appropriate Mitigation Measures for Flood prone Structures’ (March 2007) and FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013).

The table below indicates the range of proposed mitigation action categories. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Table 9.20-17. Analysis of Mitigation Actions by Hazard and Category

| Hazard | FEMA | | | | CRS | | | | | |
|-----------------------|------|-----|-----|-----|-----|----|----|----|----|----|
| | LPR | SIP | NSP | EAP | PR | PP | PI | NR | SP | ES |
| Dam Failure | X | X | | | X | | | | | X |
| Disease Outbreak | X | X | | | X | | | | | X |
| Drought | X | X | | | X | | | | | X |
| Earthquake | X | X | | | X | | | | | X |
| Extreme Temperatures | X | X | | | X | | | | | X |
| Flood | X | X | | | X | X | | | X | X |
| Severe Weather | X | X | | | X | X | | | | X |
| Severe Winter Weather | X | X | | | X | | | | | X |
| Wildfire | X | X | | | X | | | | | X |

Note: Mitigation categories are described below the Mitigation Initiatives.



The following pages list the specific mitigation initiatives Township of Maple Shade would like to pursue in the future to reduce the effects of hazards. The initiatives are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Township priorities.

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Action 2024-MapleShade-01. Code Coordinated Ordinance

| | |
|---|--|
| Lead Agency: | Floodplain Administrator |
| Supporting Agencies: | Construction Official, Administration, NFIP State Coordinator, FEMA Regional Office |
| Hazard(s) of Concern: | Flood |
| Description of the Problem: | A recent audit of New Jersey’s model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA’s review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are: the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance. |
| Description of the Solution: | After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the municipality will update and adopt the Code Coordinated Ordinance. |
| Estimated Cost: | Staff time |
| Potential Funding Sources: | Municipal budget |
| Implementation Timeline: | Within 5 years |
| Goals Met: | 1, 2, 5,7 |
| Benefits: | The updated ordinance will improve floodplain management, meet NFIP requirements, and increase resilience of new and substantially improved structures in the floodplain. |
| Impact on Socially Vulnerable Populations: | The action will result in better regulation of construction standards within the Special Flood Hazard Area where significant risk to socially vulnerable populations exists. |
| Impact on Future Development: | The action will result in stronger regulation of construction standards for future development in the Special Flood Hazard Area. |
| Impact on Critical Facilities/Lifelines: | Critical facilities and lifelines located in the Special Flood Hazard Area will be required to meet the same requirements as general building construction that are set forth in the ordinance. |
| Impact on Capabilities: | This action will improve floodplain management capabilities through better outlining of responsibilities and administrative procedures. |
| Climate Change Considerations: | The updated ordinance includes the State’s higher standards that are in place to address heightened flood risk due to climate change such as |



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| | those for floodway rise and mandatory freeboard have been incorporated in these new model ordinances. | |
| Mitigation Category: | Local Plans and Regulations | |
| CRS Category: | Preventative | |
| Priority: | High | |
| Alternatives: | Action | Evaluation |
| | No Action | Current problem exists |
| | Modify existing flood damage prevention ordinance | Time intensive |
| | Leave NFIP | Residents lose flood insurance coverage |

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Action 2024-MapleShade-02. Disaster Debris Management Plan

| | | |
|---|--|-------------------|
| Lead Agency: | Public Works | |
| Supporting Agencies: | OEM | |
| Hazard(s) of Concern: | Dam Failure, Drought, Earthquake, Extreme Temperature, Flood, Severe Weather, Severe Winter Weather, Wildfire | |
| Description of the Problem: | Major disaster events can result in large amounts of debris that overwhelm normal trash collection operations. Depending on the amount generated, temporary staging areas for debris collection may be needed. The municipality does not have a disaster debris management plan in place. During a disaster that results in debris, the municipality A plan with outlined responsibilities is needed to adequately address post-disaster cleanup operations. | |
| Description of the Solution: | The municipality will develop a disaster debris management plan. This plan will establish procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner. The plan will identify responsibilities for execution of the plan. The plan will align with permitted temporary collection areas. | |
| Estimated Cost: | Staff time | |
| Potential Funding Sources: | Municipal budget | |
| Implementation Timeline: | Within 5 years | |
| Goals: | 5, 6 | |
| Benefits: | The action will result in increased quicker and more efficient cleanup after disaster events. | |
| Impact on Socially Vulnerable Populations: | N/A | |
| Impact on Future Development: | N/A | |
| Impact on Critical Facilities/Lifelines: | N/A | |
| Impact on Capabilities: | The action will result in increased post disaster capabilities. | |
| Climate Change Considerations: | Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will increase the capabilities to respond to these events. | |
| Mitigation Category: | Local Plans and Regulations | |
| CRS Category: | Emergency Services | |
| Priority: | High | |
| Alternatives: | Action | Evaluation |
| | No Action | - |



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| | Rely on federal cleanup | These services may or may not be available |
| | Rely on state cleanup | These services may or may not be available |

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Action 2024-MapleShade-03. Substantial Damage Management Plan

| | |
|---|--|
| Lead Agency: | Floodplain Administrator |
| Supporting Agencies: | Public Works, OEM, Construction Department |
| Hazard(s) of Concern: | Dam Failure, Drought, Earthquake, Extreme Temperature, Flood, Severe Weather, Severe Winter Weather, Wildfire |
| Description of the Problem: | <p>Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:</p> <ul style="list-style-type: none"> • Determine where the damage occurred within the community and if the damaged structures are in an SFHA. • Determine what to use for “market value” and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration. • Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure’s pre-damage value. • Require permits for floodplain development. <p>The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.</p> |
| Description of the Solution: | <p>The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 <i>Developing a Substantial Damage Management Plan</i> (https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.</p> |
| Estimated Cost: | Low |
| Potential Funding Sources: | Municipal budget |
| Implementation Timeline: | Within 5 years to develop the plan; ongoing to maintain and update the plan |
| Goals Met: | 1, 2, 5, 7 |
| Benefits: | This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly. |
| Impact on Socially Vulnerable Populations: | Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations. |



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| Impact on Future Development: | A Substantial Damage Management Plan would include all existing, current, and future development in the municipality. | |
| Impact on Critical Facilities/Lifelines: | A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality. | |
| Impact on Capabilities: | This action improves disaster recovery capabilities. | |
| Climate Change Considerations: | Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery. | |
| Mitigation Category: | Local Plans and Regulations | |
| CRS Category: | Emergency Services, Preventative | |
| Priority: | High | |
| Alternatives: | Action | Evaluation |
| | No Action | - |
| | Rely on state or federal resources following disaster events | Resources may not be available during major widespread events |
| | Establish MOUs with outside agencies to conduct Substantial Damage Determinations | A plan outlining responsibilities is still necessary to prevent missing important requirements |

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Action 2024-MapleShade-04. Pennsauken Creek Mitigation Studies

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|---|---|-------------------------|
| Lead Agency: | Floodplain Administrator | |
| Supporting Agencies: | Township OEM, Engineering | |
| Hazard(s) of Concern: | Flood | |
| Description of the Problem: | There are multiple flood prone areas throughout the Township, including near the Main Street overpass (Pennsauken Creek North Branch), and Windsor and Roland Avenues (Pennsauken Creek South Branch). | |
| Description of the Solution: | The Township will conduct further mitigation studies to identify areas prone to flooding throughout the Township and identify potential properties for elevation or acquisition. The Township will identify additional flood mitigation measures to combat repetitive flooding. The Township will implement cost-effective measures identified. | |
| Estimated Cost: | Medium | |
| Potential Funding Sources: | FEMA FMA, BRIC, HMGP, Municipal Budget | |
| Implementation Timeline: | 2 years | |
| Goals Met: | 2 | |
| Benefits: | This action would reduce the flooding impacts felt by the Township from the North and South Branches of the Pennsauken Creek. | |
| Impact on Socially Vulnerable Populations: | This action will assist socially vulnerable populations whose properties are impacted by flooding from the North and South Branches of the Pennsauken Creek. Furthermore, this action will assist in keeping roadways clear of flood waters for the populations which may need to attend medical appointments or require medical attention from first responders. | |
| Impact on Future Development: | N/A | |
| Impact on Critical Facilities/Lifelines: | This action would assist in the reduction of roadway flooding from the North and South Branches of the Pennsauken Creek, permitting first responders to traverse the roadways safely. | |
| Impact on Capabilities: | N/A | |
| Climate Change Considerations: | A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events that could increase flooding severity and frequency. | |
| Mitigation Category | Structure and Infrastructure Project | |
| CRS Category | Structural Flood Control Projects, Property Protection | |
| Priority | Medium | |
| Alternatives: | Action | Evaluation |
| | No action | Current problem remains |



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| | Raise banks of creeks to increase storage capacity | Cost prohibitive |
| | Construct floodwall along creeks | Cost prohibitive |

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Action 2024-MapleShade-05. State Highways Flood Mitigation

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|---|---|--|
| Lead Agency: | Floodplain Administrator | |
| Supporting Agencies: | NJ DOT | |
| Hazard(s) of Concern: | Flood | |
| Description of the Problem: | State highways Route 38 and Route 73 in the Township will flood during severe, heavy rainfall, partially due to poor drainage. | |
| Description of the Solution: | The Township will coordinate with New Jersey Department of Transportation (NJ DOT) to identify potential flood mitigation measures to alleviate flooding concerns on Route 38 and Route 73. | |
| Estimated Cost: | Medium | |
| Potential Funding Sources: | FEMA BRIC, HMGP, Municipal and State Budgets | |
| Implementation Timeline: | 3 years | |
| Goals Met: | 1, 2 | |
| Benefits: | This action will resolve flooding complications on major State highways in the Township. These highways may be used as evacuation routes in the event of an emergency. | |
| Impact on Socially Vulnerable Populations: | N/A | |
| Impact on Future Development: | N/A | |
| Impact on Critical Facilities/Lifelines: | This action will assist in ensuring major transportation routes, which may be used in the event of an emergency, are clear and operable. | |
| Impact on Capabilities: | N/A | |
| Climate Change Considerations: | A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. | |
| Mitigation Category | Structure and Infrastructure Project | |
| CRS Category | Structural Flood Control Projects | |
| Priority | Medium | |
| Alternatives: | Action | Evaluation |
| | No action | Current problem remains |
| | Close the highways during rain events | Lack of personnel, traffic interruptions |
| | Build bridges over flood prone sections | Cost prohibitive |



Action 2024-MapleShade-06. Hazardous Material Response Plans

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|---|--|----------------------------|
| Lead Agency: | Township OEM | |
| Supporting Agencies: | Private Facility Managers | |
| Hazard(s) of Concern: | Extreme Temperature, Flood, Severe Weather | |
| Description of the Problem: | The Township is exposed to hazardous materials through fixed facility sites and materials in transport. Hazardous materials, if exposed to certain conditions, can create risk. The Conrail, which can transport hazardous materials, goes through the Township. There is a chemical plant on Rt. 73 which has a history of explosions and vapor cloud releases. Colonial Pipeline branch comes into the Township by Pennsauken Creek. | |
| Description of the Solution: | Coordinate with facility and transportation managers at Conrail, Colonial Pipeline, and various fixed facility sites to ensure hazardous material safety and response plans are up to date. | |
| Estimated Cost: | Low | |
| Potential Funding Sources: | Municipal Budget | |
| Implementation Timeline: | 2 years | |
| Goals Met: | 2 | |
| Benefits: | This action will keep first responders aware of the materials stored in various facilities, which will assist in knowing how to combat any potential releases properly and safely. | |
| Impact on Socially Vulnerable Populations: | N/A | |
| Impact on Future Development: | N/A | |
| Impact on Critical Facilities/Lifelines: | This action will assist in ensuring hazardous materials facilities and emergency responders are prepared to respond in the event of an emergency. | |
| Impact on Capabilities: | This action will strengthen the Township's emergency response capabilities. | |
| Climate Change Considerations: | Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will increase the capabilities to respond to these events. | |
| Mitigation Category | Local Plans and Regulations | |
| CRS Category | Emergency Services | |
| Priority | Medium | |
| Alternatives: | Action | Evaluation |
| | No action | - |
| | Work with fixed sites only | Will not address full risk |



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| | Work with transportation companies only | Will not address full risk |
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Action 2024-MapleShade-07. Generators at Critical Facilities

| | | |
|---|--|------------------------------|
| Lead Agency: | Engineering | |
| Supporting Agencies: | Township OEM, County OEM, NJOEM, and FEMA | |
| Hazard(s) of Concern: | Dam Failure, Disease Outbreak, Drought, Earthquake, Extreme Temperature, Flood, Severe Weather, Severe Winter Weather, Wildfire | |
| Description of the Problem: | Critical facilities in the Township, such as the EMS facility, do not have back-up power to ensure continuity of operations. | |
| Description of the Solution: | Obtain and install backup power sources at critical facilities. | |
| Estimated Cost: | High | |
| Potential Funding Sources: | FEMA BRIC, HMGP, Municipal Budget | |
| Implementation Timeline: | 5 years | |
| Goals Met: | 1, 6, 7 | |
| Benefits: | The action will establish continuity of operations at critical facilities. | |
| Impact on Socially Vulnerable Populations: | Socially vulnerable populations in need of warming or cooling will utilize the centers; furthermore, those with needs tied into power consumption (oxygen tanks, dialysis, etc.) will require a power source. Socially vulnerable populations also may be reliant on points of distribution for resources before, during, or after a hazard event. | |
| Impact on Future Development: | N/A | |
| Impact on Critical Facilities/Lifelines: | Locations identified in this action are critical facilities. These facilities may need an emergency generator to provide continued assistance to vulnerable populations. | |
| Impact on Capabilities: | The action would create a new capability for the Township. | |
| Climate Change Considerations: | Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides a safe location with air conditioning and heat for residents and visitors to locate to during hazard events. | |
| Mitigation Category | Structure and Infrastructure Project | |
| CRS Category | Emergency Services | |
| Priority | Medium | |
| Alternatives: | Action | Evaluation |
| | No Action | Current problem continues |
| | Solar Panels | Weather dependent and costly |



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| | Mobile Generator | May lack sufficient power supply or run time |
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Action 2024-MapleShade-08. Hazard Mitigation Principles Integration

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|---|---|---|
| Lead Agency: | Township Administration | |
| Supporting Agencies: | Township OEM | |
| Hazard(s) of Concern: | Dam Failure, Disease Outbreak, Drought, Earthquake, Extreme Temperature, Flood, Severe Weather, Severe Winter Weather, Wildfire | |
| Description of the Problem: | Various plans in the Township do not have hazard mitigation principles integrated into the plans. | |
| Description of the Solution: | During future updates of the Master Plan, Floodplain Management Plan, or the Emergency Operation Plan, work to integrate hazard mitigation principles and recommendations into the plans. Additionally, use these hazard mitigation principles and plan recommendations to update local building and zoning codes to create a more resilient community. | |
| Estimated Cost: | Staff Time | |
| Potential Funding Sources: | Municipal Budget | |
| Implementation Timeline: | 5 years | |
| Goals Met: | 1, 2, 5 | |
| Benefits: | This action will integrate hazard mitigation principles and recommendations into the plans, creating a more resilient community. | |
| Impact on Socially Vulnerable Populations: | N/A | |
| Impact on Future Development: | Hazard mitigation principles and plan recommendations can be used to update local building and zoning codes to create a more resilient community. | |
| Impact on Critical Facilities/Lifelines: | N/A | |
| Impact on Capabilities: | This action will strengthen various plans and policies in the Township. | |
| Climate Change Considerations: | Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will integrate hazard mitigation principles into existing capabilities. | |
| Mitigation Category | Local Plans and Regulations | |
| CRS Category | Preventative Measures | |
| Priority | Medium | |
| Alternatives: | Action | Evaluation |
| | No action | Hazard mitigation principles will not be integrated |



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| | Hazard mitigation principles integrated only into Township codes | Inconsistencies with Township plans |
| | Hazard mitigation principles integrated only into Township plans | Inconsistencies with Township codes |

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Action 2024-MapleShade-09. Flood Hazard Mitigation

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|---|---|
| Lead Agency: | Floodplain Administrator |
| Supporting Agencies: | Township Administration |
| Hazard(s) of Concern: | Flood |
| Description of the Problem: | Repetitively flooded properties place an undue stress on the property owner and Township and efforts should be made to mitigate them. The Township currently has one repetitive loss property but other properties may have sustained flood damages. |
| Description of the Solution: | <p>The Township will promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, specifically those that have been identified as Repetitive Loss (RL) and Severe Repetitive Loss (SRL). At risk areas include:</p> <ul style="list-style-type: none"> • Regent Ave • Route 73 <p>Alternatives would include acquisition/relocation or elevation depending on feasibility, and the completion of initiative is dependent on funding, benefits versus cost, and willing participation of property owners.</p> |
| Estimated Cost: | Medium |
| Potential Funding Sources: | FEMA FMA, FMA SWIFT, NJDEP Green Acres, NJDEP Blue Acres, Municipal Budget |
| Implementation Timeline: | 3 years |
| Goals Met: | 2, 3, 5, 7 |
| Benefits: | This action would foster comprehensive floodplain management by removing at risk properties from the flood hazard area or elevating properties to reduce the flood risk. |
| Impact on Socially Vulnerable Populations: | Socially vulnerable populations may be able to have houses elevated or acquired when it would otherwise be unaffordable. |
| Impact on Future Development: | Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites. |
| Impact on Critical Facilities/Lifelines: | Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue. |
| Impact on Capabilities: | Instituting this program would be a new capability for the Township. |
| Climate Change Considerations: | A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Sea level rise associated with climate change may cause water levels in the tidal Delaware River to increase. |



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| Mitigation Category | Structure and Infrastructure Project | |
| CRS Category | Structural Flood Control Projects, Property Protection | |
| Priority | Medium | |
| Alternatives: | Action | Evaluation |
| | No action | Current problem continues |
| | Construct flood walls/barriers around vulnerable areas | Costly and can divert floodwaters to other areas |
| | Deployable flood barriers for vulnerable areas | Requires a great deal of work to implement prior to each event |

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The prioritization criteria provided in Volume 1, Section 6 (Mitigation Strategy) identify 14 evaluation/prioritization criteria to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing actions as 'High', 'Medium', or 'Low.' The table below provides a summary of the prioritization of all proposed mitigation initiatives for the HMP update.

Table 9.20-18. Summary of Prioritization of Actions

| Project Number | Project Name | Life Safety | Property Protection | Cost-Effectiveness | Political | Legal | Fiscal | Environmental | Social Vulnerability | Administrative | Hazards of Concern | Climate Change | Timeline | Community Lifelines | Other Community Objectives | Total | High / Medium / Low |
|--------------------|--|--------------------|----------------------------|--------------------|-----------|-------|--------|---------------|----------------------|----------------|--------------------|----------------|----------|---------------------|----------------------------|-------|---------------------|
| | | 2024-MapleShade-01 | Code Coordinated Ordinance | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 |
| 2024-MapleShade-02 | Disaster Debris Management Plan | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 11 | High |
| 2024-MapleShade-03 | Substantial Damage Management Plan | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 11 | High |
| 2024-MapleShade-04 | Pennsauken Creek Mitigation Studies | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 9 | Medium |
| 2024-MapleShade-05 | State Highways Flood Mitigation | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 8 | Medium |
| 2024-MapleShade-06 | Hazardous Material Response Plans | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 10 | Medium |
| 2024-MapleShade-07 | Generators at Critical Facilities | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 9 | Medium |
| 2024-MapleShade-08 | Hazard Mitigation Principles Integration | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 10 | Medium |
| 2024-MapleShade-09 | Flood Hazard Mitigation | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 9 | Medium |

Note: Volume 1, Section 6 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-6), Medium (7-10), High (11-14).