



9.19 TOWNSHIP OF WASHINGTON

This section presents the jurisdictional annex for the Township of Washington and includes resources and information to assist public and private sectors with reducing losses from future hazard events. This annex is not intended as guidance for actions to take during a disaster. Rather, this annex provides actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex includes a general overview of the municipality and who in the Township participated in the planning process, an assessment of the Township of Washington’s risk and vulnerability, the different capabilities used in the Township, and an action plan that will be implemented to achieve a more resilient community.

9.19.1 Hazard Mitigation Planning Team

The Township of Washington followed the planning process described in Section 2 (Planning Process) in Volume I of this plan update and developed the annex over the course of several months with input from many Township departments as summarized in the table below. The primary and alternate points of contact represented the community on the 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 coronavirus pandemic resulted in a strain on local resources that limited some participation, but every effort was made to connect with staff and stakeholders and gain diverse input. Due to safety precautions, all meetings were held virtually.

The following table summarizes municipal officials that participated in the development of the annex and in what capacity, including the Township of Washington’s hazard mitigation plan primary and alternate points of contact. Additional documentation on the municipality’s planning process through Planning Partnership meetings is included in Section 2 (Planning Process) and Appendix C (Meeting Documentation).

Table 9.19-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Jason Gonter (Business Administrator) Address: 523 Egg Harbor Road, Sewell, NJ 08080 Phone Number: 856-589-2546 Email: jgonter@twp.washington.nj.us	Name/Title: Andrew Yoder (Assistant to Township Engineer) Address: 2059 Springdale Road, Cherry Hill, NJ 08003 Phone Number: 856-795-9595 Email: andrew.yoder@rve.com
NFIP Floodplain Administrator	
Name/Title: Jason Gonter (Business Administrator) Address: 523 Egg Harbor Road, Sewell, NJ 08080 Phone Number: 856-589-2546 Email: jgonter@twp.washington.nj.us	



Name	Title	Method of Participation
Annina Hogan	Township Engineer	Provided information on capabilities, previous actions and contributed to mitigation strategy.
Frank Altamuro	Public Works Supervisor	Provided information on previous actions, contributed to mitigation strategy.
Brian McCaffery	Public Works Supervisor	Provided information on previous actions, contributed to mitigation strategy.
Andrew Yoder	Assistant to Township Engineer	Provided information on capabilities, previous actions and contributed to mitigation strategy.
Patrick Gurcsik	Washington Township Police Chief	Provided information on previous actions, contributed to mitigation strategy.
Alicia Marini	Business Office	Provided information on previous actions, contributed to mitigation strategy.
Township Construction Office	Administration	Provided information on previous actions, contributed to mitigation strategy.

9.19.2 Municipal Profile

The Township of Washington was incorporated on February 17, 1836 as part of Gloucester County during a meeting held at the Green Tree Tavern, at the corner of Egg Harbor Road and Greentree Road. The township officially moved to the newly created Camden County on March 13, 1844. Most of Washington Township, along with all of Monroe Township, was moved back into Gloucester County on February 28, 1871, with the remaining portions of Washington Township that were still in Camden County being transferred to Gloucester Township. The township was named for George Washington, one of more than ten communities statewide named for the first president. The oldest community in Washington Township, Grenloch Terrace, was a thriving Lenape Native American settlement called Tetamekon.

The township had a total area of 21.55 square miles, including 21.35 square miles of land and 0.20 square miles of water. Atlantic City Expressway and Route 55 pass through the municipality. Unincorporated communities, localities and place names located partially or completely within the township include Bells Lake, Cressville, Dilkesboro, Fairview, Green Tree, Grenloch Terrace, Hurffville, Mount Pleasant, Prossers Mill, and Turnersville.

The township's governing body is comprised of the Mayor and the five-member Township Council. The mayor is directly elected by township voters and is the chief executive in charge of the administrative functions of the town. Members of the township council are elected on an at-large basis in partisan elections.

According to the U.S. Census, the 2010 population for the Township of Washington was 48,559. The estimated 2019 population was 47,833, a 1.5 percent decrease from the 2010 Census. Data from the 2019 U.S. Census



American Community Survey indicate that 5.3 percent of the population is 5 years of age or younger and 17.1 percent is 65 years of age or older. Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

9.19.3 Jurisdictional Capability Assessment and Integration

The Township of Washington performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, 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. Annex development included reviewing planning and policy documents and surveying each jurisdiction to obtain a better understanding of their progress in plan integration and how risk reduction is supported. Areas with current mitigation integration are summarized in this jurisdictional Capability Assessment (Section 9.19.3). The updated mitigation strategy includes opportunities the Township of Washington identified for integration of mitigation concepts to be incorporated into municipal procedures.

9.19.3.1 Planning, Legal, and Regulatory Capability

Section 5 (Capability Assessment) provides an overview of the planning, legal, and regulatory capabilities. The table below summarizes the regulatory tools that are available to the Township of Washington, what is present in the jurisdiction, and code citation and date.

Table 9.19-2. Planning, Legal, and Regulatory Capability

	Jurisdiction has this? (Yes/No)	Required by State? (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	Yes	Chapter 55 Construction Codes, Uniform, 1995	State and Local	Construction Official, Building Subcode Official, Plumbing



	Jurisdiction has this? (Yes/No)	Required by State? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
					Subcode Official, Electrical Subcode Official, Fire Protection Subcode Official, and such other subcode officials
<p><i>How does this reduce risk?</i></p> <ul style="list-style-type: none"> Chapter 55 adopts the Uniform Construction Code for building and construction in the Township. 					
Zoning/Land Use Code	Yes	Yes, if the jurisdiction has a planning board	Chapter 125, Land Use Procedures, 1995; Chapter 285, Zoning, 1995	Local	Planning Board and Zoning Board of Adjustment; Zoning Officer
<p><i>How does this reduce risk?</i></p> <ul style="list-style-type: none"> Chapter 125: Establishes Planning Board and Zoning Board of Adjustment and provisions applicable to both boards. Chapter 285: The zoning regulations and districts set forth in this chapter are designed to effectuate the Washington Township Master Plan and to make such regulations substantially consistent with the land use plan element of the Master Plan. 					
Subdivision Ordinance	Yes	Yes, if the jurisdiction has a planning board	Chapter 220, Subdivision of Land, 1995	Local	Planning Board
<p><i>How does this reduce risk?</i></p> <ul style="list-style-type: none"> The purposes of this chapter shall be to provide rules, regulations and standards to guide land subdivision in Washington Township in order to promote the public health, safety, convenience and general welfare of the Township. It shall be administered to ensure the orderly growth and development, the conservation, protection and proper use of land and adequate provisions for circulation, utilities and services. 					
Stormwater Management Ordinance	Yes	Yes	Chapter 214, Stormwater Management, 2007	Local	Engineer
<p><i>How does this reduce risk?</i></p> <ul style="list-style-type: none"> It is the purpose of this chapter to establish minimum stormwater management requirements and controls for major development consistent with the statewide stormwater requirements at N.J.A.C. 7:8 and the provisions of the adopted Master Plan and land use ordinances of the Township of Washington. Through this chapter, the Township of Washington has established the following goals for stormwater control: <ul style="list-style-type: none"> (a) To reduce flood damage, including damage to life and property; (b) To minimize any increase in stormwater runoff from new development; (c) To reduce soil erosion from any development or construction project; (d) To assure the adequacy of existing and proposed culverts and bridges, and other instream structures; (e) To maintain groundwater recharge; (f) To minimize any increase in nonpoint pollution; (g) To maintain the integrity of stream channels for their biological functions, as well as for drainage; (h) To restore, protect, maintain and enhance the quality of the streams and water resources and the ecological character and quality of the Township of Washington; (i) To minimize pollutants in stormwater runoff from new and existing development in order to restore, protect, enhance and maintain the chemical, physical and biological integrity of the surface waters and groundwaters of the Township of Washington, to protect public health and to enhance the domestic, municipal, recreational, industrial and other uses of water; and (j) To protect public safety through the proper design and operation of stormwater management basins. In order to achieve the goals for stormwater control set forth in this chapter, the Township of Washington has identified the following management techniques: <ul style="list-style-type: none"> (a) Implementation of multiple stormwater management best management practices (BMPs) may be necessary to achieve the performance standards for stormwater runoff quantity and rate, groundwater recharge, erosion control, and stormwater runoff quality established through this chapter. (b) Compliance with the stormwater runoff quantity and rate, groundwater recharge, erosion control, and stormwater runoff quality standards established through N.J.A.C. 7:8-1.1 et seq., and this chapter, shall be accomplished to the maximum extent practicable through the use of nonstructural BMPs, before relying on structural BMPs. Nonstructural BMPs are also known as low-impact development (LID) techniques. 					



	Jurisdiction has this? (Yes/No)	Required by State? (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"> o (c) Nonstructural BMPs shall include both environmentally sensitive site design and source controls that prevent pollutants from being placed on the site or from being exposed to stormwater. o (d) Source control plans shall be developed based upon physical site conditions and the origin, nature and the anticipated quantity or amount of potential pollutants. o (e) Structural BMPs, where necessary, shall be integrated with nonstructural stormwater management strategies and proper maintenance plans. o (f) When using structural BMPs, multiple stormwater management measures, smaller in size and distributed spatially throughout the land development site, shall be used wherever possible to achieve the performance standards for water quality, quantity and groundwater recharge established through this chapter before relying on a single, larger stormwater management measure to achieve these performance standards. 					
Post-Disaster Recovery/ Reconstruction Ordinance	No	No	-	-	-
<i>How does this reduce risk?</i>					
Real Estate Disclosure		Yes		State	
<i>How does this reduce risk?</i>					
Growth Management	No	Yes, if the jurisdiction has a planning board	-	-	-
<i>How does this reduce risk?</i>					
Site Plan Ordinance	Yes	Yes, if the jurisdiction has a planning board	Chapter 199, Site Plan Review, 1995	Local and County	Planning Board
<i>How does this reduce risk?</i>					
<ul style="list-style-type: none"> • The purpose of site plan review is to determine whether the proposed use, building or structure, or addition to any building, structure or use, will conform to the revised statutes; Chapter 185, Zoning; Chapter 220, Subdivision of Land; and other applicable ordinances and requirements of the Township. Site plan review shall work towards the development of an aesthetically acceptable and well-ordered community serving the interest of the public health, safety and general welfare of the Township. • The Planning Board and/or Zoning Board of Adjustment shall review the plans, at which time the applicant may be called to explain, amplify or discuss the plan. The appropriate Board shall then prepare its report containing a statement regarding the completeness of the plan and conditions and recommendations for approval. For Zoning Board of Adjustment site plans, the Planning Board shall send a report to the Zoning Board of Adjustment which shall pertain to the site plan only and not to the entire application. 					
Environmental Protection Ordinance	Yes	Yes, depends on type of environmental areas	Chapter 82, Fertilizer Application, 2009	Local	Police Department, Public Works Department, Zoning Officer
<i>How does this reduce risk?</i>					
<ul style="list-style-type: none"> • This chapter regulates the outdoor application of fertilizer so as to reduce the overall amount of excess nutrients entering waterways, thereby helping to protect and improve surface water quality. This chapter does not apply to fertilizer application on commercial farms. 					
Flood Damage Prevention Ordinance	Yes	Yes	Chapter 96, Flood Damage Prevention, 2016	Federal, State, County and Local	Business Administrator
<i>How does this reduce risk?</i>					
<ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> o A. Protect human life and health; o B. Minimize expenditure of public money for costly flood control projects; o C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public; o D. Minimize prolonged business interruptions; 					



	Jurisdiction has this? (Yes/No)	Required by State? (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"> o E. Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, and bridges located in areas of special flood hazard; o F. Help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas; o G. Ensure that potential buyers are notified that property is in an area of special flood hazard; and o H. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions. • In order to accomplish its purposes, this chapter includes methods and provisions for: <ul style="list-style-type: none"> o A. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; o B. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; o C. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel floodwaters; o D. Controlling filling, grading, dredging, and other development which may increase flood damage; and o E. Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas. 					
Wellhead Protection	Yes	No	Chapter 273, Wellhead Protection, 2004	Local	Planning Board or Zoning Board.
<i>How does this reduce risk?</i>					
<ul style="list-style-type: none"> • The purpose of the Wellhead Protection Overlay District is to protect public health, welfare and safety of the citizens and institutions that are customers of the Washington Township Municipal Utilities Authority (WTMUA) and community water systems in neighboring communities, by regulating the land use and the storage, handling, use and/or production of hazardous substances and hazardous wastes within wellhead protection areas for existing and proposed municipal wells. The intent of this chapter is to protect community water supplies from contamination. This chapter is also meant to encourage coordinated protection efforts with neighboring municipalities. 					
Emergency Management Ordinance	No	No	-	-	-
<i>How does this reduce risk?</i>					
Climate Change Ordinance	No	No	-	-	-
<i>How does this reduce risk?</i>					
Disaster Recovery Ordinance	No	No	-	-	-
<i>How does this reduce risk?</i>					
Disaster Reconstruction Ordinance	No	No	-	-	-
<i>How does this reduce risk?</i>					
Other	No	-	-	-	-
Codes, Ordinances, & Regulations Connection to Mitigation and Safe Growth					
<ul style="list-style-type: none"> • Prior to, zoning changes, or development permitting, does the jurisdiction review the hazard mitigation plan and other hazard analyses to ensure consistent and compatible land use? Twp planner/Twp engineer review for consistency. • Does the zoning ordinance discourage development or redevelopment within natural areas including wetlands, floodways, and floodplains? Yes. • Does it contain natural overlay zones that set conditions? Not within ordinance but within township maps via GIS. • Does the ordinance require developers to take additional actions to mitigate natural hazard risk? TBD. • Do rezoning procedures recognize natural hazard areas as limits on zoning changes that allow greater intensity or density of use? Yes. • Do the ordinances prohibit development within, of filling of, wetlands, floodways, and floodplains? Yes, regulates permeability by NJDEP • Do the subdivision regulations restrict the subdivision of land within or adjacent to natural hazard areas? Yes • Do the regulations provide for conservation subdivisions or cluster subdivisions in order to conserve environmental resources? Yes. • Do the regulations allow density transfers where hazard areas exist? No. 					



	Jurisdiction has this? (Yes/No)	Required by State? (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"> When updating ordinances, is hazard mitigation considered? TBD. 					
Planning Documents					
Master Plan	Yes	Yes – County Yes - municipality	Master Plan, 2004	Local	Planning Board
<i>How does this reduce risk?</i> <ul style="list-style-type: none"> The Master Plan outlines strategy for long term development and guidance for the Township. 					
Capital Improvement Plan	Yes	Allowed	Capital Improvement Budget, 2014	Local	Administration
<i>How does this reduce risk?</i> <ul style="list-style-type: none"> The Capital Improvement Budget can be used to allocate funding for mitigation projects. 					
Disaster Debris Management Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Floodplain Management or Watershed Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Stormwater Management Plan	Yes	Yes	Watershed Based Municipal Stormwater Management Plan, Washington Township, February 2006	Local	Gloucester County Improvement Authority
<i>How does this reduce risk?</i> The Washington Township Watershed Based Municipal Stormwater Management Plan goals are: <ul style="list-style-type: none"> The reduction of flood damage, including damage to life and property. The minimization, to the extent practical, of increases in stormwater runoff from new development. The reduction of soil erosion from construction activities. the insurance of adequate stormwater facilities, including culverts, bridges, and other in-stream structures. The maintenance of groundwater recharge. The prevention, to the extent feasible, of nonpoint stormwater pollution. The maintenance of surface waters to ensure their biological and stormwater management functions, including the restoration, enhancement, and maintenance of their chemical, physical, and biological integrity, in order to protect public health and safeguard aquatic life; the preservation of their scenic and ecological values; and the enhancement of their domestic, municipal, recreational, industrial, and other uses. The protection of public health and welfare, through the planning, engineering, operation and maintenance of stormwater systems. 					
Stormwater Pollution Prevention Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Urban Water Management Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Habitat Conservation Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Economic Development Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Shoreline Management Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Community Wildfire Protection Plan	No	No	-	-	-



	Jurisdiction has this? (Yes/No)	Required by State? (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>					
Community Forest Management Plan	Yes	No	Community Forestry Management Plan	Local	Public Works, Open Space Advisory Committee
<i>How does this reduce risk?</i>					
<ul style="list-style-type: none"> Washington Township completed and adopted its first Community Forestry Management Plan (CFMP) in 2020. The CFMP was developed through the combined efforts of staff of the Public Works Department and volunteers from the Open Space Advisory Committee, with the assistance of Remington & Vernick Engineers. Washington Township received a Green Communities Grant from the New Jersey Department of Environmental Protection Forestry Program in 2018, which has assisted in the production of the CFMP. 					
Transportation Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Agriculture Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Climate Action/ Resiliency Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Tourism Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Business/ Downtown Development Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Other	Yes	No	Open Space and Recreation Plan Update, 2018	Local	Open Space Committee
<i>How does this reduce risk?</i>					
<p>The Open Space and Recreation Plan Update:</p> <ul style="list-style-type: none"> Assesses existing open space to prioritize and implement land stewardship initiatives. Produces a targeted, site-specific action program, identifying projects to protect the natural and recreational features in the Township. Reviews and updates the program goals and provides field-based assessments of existing preserved open space. Recommends land for preservation and stewardship. The properties are identified on parcel-based maps. Included within this report is an open space map which identifies public and private lands in the municipality, showing all permanently preserved lands in the community. The final map is a greenway map, which is a conceptual map identifying the proposed corridors for connecting preserved lands based on recreational, cultural, and natural resources in the community. <p>Recommendations in the plan include:</p> <ul style="list-style-type: none"> Develop a clear vision for acquiring future property and clarify the Township's objectives for currently owned public open space with the development of plans for use, stewardship, maintenance, and assessment of costs related to these concerns. Complete an inventory of municipal conservation easements to support this objective. Consider the establishment of a shade tree or forestry committee to serve the needs of the community to manage its forested lands. Improve existing trail systems and bike paths. Increase communication between all entities involved in the maintenance and acquisition of open space and recreational properties. Enhance the capacity of the Township and Open Space Advisory Committee for grant writing, education, public outreach, and community wellness campaigns. Revisit the municipal Open Space Trust Fund to review the ordinance and how it compares to other communities for conservation, land acquisition, park management, and stewardship. Formulate and adopt policies to guide funding consistent and appropriate with these purposes. 					



	Jurisdiction has this? (Yes/No)	Required by State? (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"> Improve signage identifying public open space and improve the public's understanding of the designation and use of these lands. 					
Planning Connection to Mitigation and Safe Growth					
<ul style="list-style-type: none"> When constructing upcoming budgets, hazard mitigation actions will be funded as budget allows. Construction projects will be evaluated to see if they meet the hazard mitigation goals. Yes. Annually, the jurisdiction will review mitigation actions when allocating funding. Yes. Do budgets limit expenditures on projects that would encourage development in areas vulnerable to natural hazards? Yes. Do infrastructure policies limit extension of existing facilities and services that would encourage development in areas vulnerable to natural hazards? Yes, must get NJDEP approved limits. Do budgets provide funding for hazard mitigation projects identified in the County HMP? Yes, as it can be. Does the future land use map clearly identify natural hazard areas? Yes. Do the land use policies discourage development or redevelopment with natural hazard areas? Yes. Does the plan provide adequate space for expected future growth in areas located outside natural hazard areas? Yes. Does the transportation plan limit access to hazard areas? Yes. Is transportation policy used to guide growth to safe locations? No policy in place Are transportation systems designed to function under disaster conditions (e.g., evacuation)? Pre-existing - NA Are environmental systems that protect development from hazards identified and mapped? Yes. Do environmental policies maintain and restore protective ecosystems? Maintain yes. Do environmental policies provide incentives to development that is located outside protective ecosystems? No. 					
Response/Recovery Planning					
Emergency Operations Plan	Yes	Yes	Emergency Operations Plan and Vulnerability Analysis, 2012	Local	Division of Emergency Management
<i>How does this reduce risk?</i>					
<ul style="list-style-type: none"> Outlines requirements and responsibilities for Emergency Response. 					
Strategic Recovery Planning Report	No	No	-	-	-
<i>How does this reduce risk?</i>					
Threat & Hazard Identification & Risk Assessment (THIRA)	No	No	-	-	-
<i>How does this reduce risk?</i>					
Post-Disaster Recovery Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Continuity of Operations Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Public Health Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Other	No	-	-	-	-
Response/Recovery Planning Connection to Mitigation and Safe Growth					
<ul style="list-style-type: none"> Does your EOP cover short-term response and long-term recovery to address communications, evacuation, and housing necessary for identified hazards? Yes. 					

9.19.3.2 Development and Permitting Capability

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



Table 9.19-3. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Yes/No	Comment
Do you issue development permits? <ul style="list-style-type: none"> If yes, what department is responsible? If no, what is your process for development? 	Yes	Zoning Office
Are permits tracked by hazard area? (For example, floodplain development permits.)	No	-
Do you have a buildable land inventory? <ul style="list-style-type: none"> If yes, describe. If no, quantitatively describe the level of buildout in the jurisdiction. 	Yes	GIS Mapping

9.19.3.3 Administrative and Technical Capability

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

Table 9.19-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comments (available staff, responsibilities, support of hazard mitigation)
Administrative Capability		
Planning Board	Yes	Planning Board. Supported by the Zoning Officer and Planning Board Secretary.
Zoning Board of Adjustments	Yes	The Zoning Board of Adjustment, established under authority of New Jersey's Municipal Land Use Law, consists of seven regular members and two alternate members appointed by Township Council. All are residents of Washington Township. Regular members serve four-year terms, while alternate members serve two-year terms.
Planning Department	Yes	The Department of Planning & Zoning is responsible for processing zoning permits, setting agendas for Planning and Zoning Board meetings, and for enforcing the Zoning Codes of Washington Township.
Mitigation Planning Committee	Yes	Local Emergency Planning Committee
Environmental Board/Commission	Yes	The mission of the Environmental Commission is to encourage the protection and appropriate development and use of the Township's natural resources. The Environmental Commission advises the Mayor and Council on land and water conservation and protection actions and pollution events; provides recommendations to the Planning Board and Zoning Board of Adjustment on land development applications; and sponsors community education and engagement activities. Projects include Earth Day events, an annual community-wide clean-up, stream sampling with school students, endangered species protection, and activities



Resources	Available? (Yes/No)	Comments (available staff, responsibilities, support of hazard mitigation)
		addressing drinking water protection, tree preservation and reforestation.
Open Space Board/Committee	Yes	<p>The Open Space Committee is responsible for the development of the Open Space and Recreation Plan.</p> <p>The Township also has a Parks & Recreation Department.</p>
Economic Development Commission/Committee	Yes	<p>The Advisory Board of Economic Development was created to contact, solicit and otherwise investigate all manners of attracting professional and light industry to relocate and build in Washington Township. The Board is comprised of volunteers from various business disciplines and works closely with the Mayor's office and our Planning and Zoning Boards to help guide a business through the application, planning and approval process.</p>
Public Works/Highway Department	Yes	<p>The goal of the Washington Township Municipal Services is to accommodate all residents with regards to services. Services include:</p> <ul style="list-style-type: none"> • Tree maintenance • Snow removal • Stormwater management • Roadway repair <p>The Washington Township Municipal Utilities Authority is a public body corporate and politic of the state of New Jersey, created by virtue of an ordinance duly adopted on June 22, 1962 by the Township Council of the Township of Washington. The Authority was created for the purpose of construction and operating a sanitary sewerage system for the proper collection and disposal of certain sanitary sewerage and other wastes arising within the Township of Washington and a water distribution system within the Township of Washington.</p> <p>The Authority has broad powers including, among others, the following:</p> <ul style="list-style-type: none"> • to hold, operate and administer its property, • to provide for bonds and the secure the payment and rights of holders thereof, • to charge and collect user charges for the use of its facilities and to revise such user charges to ensure that revenues of the Authority will at times be adequate to pay all operating and maintenance expenses including reserves, insurance, extensions and replacements, and to pay the principal of and interest on any bonds and to maintain such reserves or sinking funds that may be



Resources	Available? (Yes/No)	Comments (available staff, responsibilities, support of hazard mitigation)
		<p>required by the terms of any contract of the Authority; and</p> <ul style="list-style-type: none"> to make and enforce rules and regulations of the management of its business and affairs.
Construction/Building/Code Enforcement Department	Yes	Washington Township's Department of Code Enforcement and Inspections is responsible for ensuring all construction work in the Township complies with the requirements of the New Jersey Uniform Construction Code.
Emergency Management/Public Safety Department	Yes	Both the Division of Police and Division of Emergency Management fall within the Department of Law Enforcement. As such, the Division of Emergency Management answers to the Director of Law Enforcement, who is the Chief of Police. Emergency Management is responsible for mitigation, preparedness, response, and recovery in the Township.
Warning Systems / Services (mass notification system, outdoor warning signals)	Yes	The Township utilizes the Everbridge notification warning platform for hazard events. It is a critical communication application offered to the Township through Gloucester County.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	Washington Township Municipal Services
Mutual aid agreements	Yes	Washington Township has reciprocal "mutual aid" agreements to assist other public and private sector entities during the course of given emergencies.
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	Yes	<p>The Business Administrator oversees the functions of the Finance and Administration Department. The Department of Finance and Administration is responsible for the following functions:</p> <ul style="list-style-type: none"> Department Head Management Budget Preparation Economic Development Personnel Technology Administrative Services Employee Safety Contracted Work <p>The Department of Housing completes Certificate of Occupancy inspections ensure that buyers and tenants moving into properties have a safe environment. All items inspected have an effect on life safety, health, and welfare of occupants or users of buildings. Property records are also checked for work</p>



Resources	Available? (Yes/No)	Comments (available staff, responsibilities, support of hazard mitigation)
		<p>done with no permits and permitted work that was never inspected.</p> <p>The Family & Community Services Committee is a volunteer organization, comprised of municipal officials, educators, police officers and community members, committed to coordinating resources and activities to help educate Washington Township residents battling addiction, poverty and other threats to our families, with a special focus on preventing drug abuse.</p> <p>The Historic Preservation Commission promotes awareness of local culture and history. The Board will preserve, present and educate the public about artifacts and traditions indigenous to Washington Township. The functions and duties of the Commission shall be to establish long-range plans for the development of the Olde Stone House Village, and to plan, organize and implement programs of an entertaining and educational nature.</p> <p>The Green Team encourages both a broad vision of sustainability across the community and a focus on municipal activities and operations. Designated membership of the GTAC includes representatives of the Administration, Township Council, Environmental Commission, Planning Board, Municipal Utilities Authority, Chamber of Commerce, School Board, Public Works Department, and the Public.</p> <p>Senior Citizen Advisory Board</p>
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Consultants
Engineers or professionals trained in building or infrastructure construction practices	Yes	Consultants
Planners or engineers with an understanding of natural hazards	Yes	Consultants
Staff with expertise or training in benefit/cost analysis	Yes	Consultants (Engineer/Financial Analysis)
Professionals trained in conducting damage assessments	Yes	Consultants
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	Consultants
Scientist familiar with natural hazards	No	-
Surveyor(s)	Yes	Consultants
Emergency Manager	Yes	Police Chief
Grant writer(s)	Yes	Consultants



Resources	Available? (Yes/No)	Comments (available staff, responsibilities, support of hazard mitigation)
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	Yes	Stormwater and environmental engineering services available.
How do your administrative/technical capabilities contribute to risk reduction in your community? By addressing items listed in the emergency management plan.		

9.19.3.4 Fiscal Capability

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

Table 9.19-5. Fiscal Capabilities

Financial Resources	Are these accessible or eligible to use for mitigation? (Yes/No) If yes, please describe. If no, can this be used to support in the future?
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Unknown
User fees for water, sewer, gas or electric service	No
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	Unknown
Incur debt through private activity bonds	Unknown
Withhold public expenditures in hazard-prone areas	Unknown
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	Yes, Open Space Trust Fund tax. Since 2001, with monies from the Open Space Trust Fund, the Green Acres Program, and Gloucester County Open Space and Farmland Preservation Funds, some 330 acres of land have been permanently preserved.
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No
Fiscal Connection to Mitigation and Safe Growth	
<ul style="list-style-type: none"> • How do your fiscal capabilities contribute to risk reduction in your community? Team looks at infrastructure. • When constructing upcoming budgets, hazard mitigation actions will be funded as budget allows. Construction projects will be evaluated to see if they meet the hazard mitigation goals. • Annually, the jurisdiction will review mitigation actions when allocating funding. • Do budgets limit expenditures on projects that would encourage development in areas vulnerable to natural hazards? N/A • Do infrastructure policies limit extension of existing facilities and services that would encourage development in areas vulnerable to natural hazards? N/A • Do budgets provide funding for hazard mitigation projects identified in the County HMP? Yes 	



9.19.3.5 Education and Outreach Capability

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

Table 9.19-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comments (available staff, responsibilities, etc.)
Public information officer or communications office	Yes	Internal staff
Personnel skilled or trained in website development	Yes	Internal staff
Hazard mitigation information available on your website	Yes	Information on disaster preparedness, storm readiness, covid-19, and mitigation concepts are hosted on the emergency management page. Information on stormwater management is located on the Municipal Services page. The MUA has water conservation available on their website.
Social media for hazard mitigation education and outreach	Yes	Facebook, Twitter, Instagram, YouTube
Citizen boards or commissions that address issues related to hazard mitigation	Yes	Environmental Commission, Family & Community Services Committee, Historic Preservation Commission, Senior Citizen Advisory Board, Green Team
Other programs already in place that could be used to communicate hazard-related information	Yes	See above
Warning systems for hazard events	Yes	Township utilizes the Everbridge notification warning platform for hazard events. It is a critical communication application offered through Gloucester County.
Natural disaster/safety programs in place for schools	Yes	Our Schools / Superintendent has a safety / disaster plan in place that addresses emergency preparedness in schools for students and staff.
Other	No	-
<p>Does the jurisdiction have any public outreach mechanisms / programs in place to inform citizens on natural hazards, risk, and ways to protect themselves during such events? If yes, please describe. Yes. The Township has outreach programs in place Through the Fire Department & Police Department to provide programs and communications to residents. The programs educate the public & provides communications to keep them safe during natural disasters, hazards and risks.</p>		

9.19.3.6 Community Classifications

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

Table 9.19-7. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	Unknown	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	Unknown	-	-



Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Sustainable Jersey	Yes	Silver	December 16, 2020
StormReady Certification	No	-	-
Firewise Communities classification	No	-	-

Note:

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

Washington Township is a silver certified community in the Sustainable Jersey program. The community earned points to support certification through the following hazard mitigation related actions:

- **Green Team:** Washington Township Council established the Green Team Advisory Committee (GTAC) in 2015 to encourage both a broad vision of sustainability across the community and a focus on municipal activities and operations. Designated membership of the GTAC includes representatives of the Administration, Township Council, Environmental Commission, Planning Board, Municipal Utilities Authority, Chamber of Commerce, School Board, Public Works Department, and the Public.
- **Water Protection:** The Township and MUA have developed various water protection measures including education, a wellhead protection ordinance, a Land Development Checklist, ground water monitoring, etc.
- **Natural Resource Inventory:** An Environmental Resource Inventory (ERI), also known as a Natural Resource Inventory, is a compilation of information about the natural resource characteristics and environmental features of a community. The ERI for Washington Township was first completed in 1991 and updated in 2017.
- **Environmental Commission:** The Washington Township Environmental Commission (WTEC) was established in 1989. The WTEC's purpose is the protection, development and use of natural resources including water resources in Washington Township. The WTEC reviews land development project plans submitted to our Planning Board and Zoning Board of Adjustment.
- **Open Space Plans:** In 2001, the Township Council established the Open Space Trust Fund and tax. Council created the Open Space Advisory Committee (OSAC), and charged it with developing an Open Space and Recreation Plan (OSRP) for submission to the New Jersey Green Acres Program (qualifying the Township for the Planning Incentive Program). The OSRP was formally reviewed in 2009. An update to the OSRP was initiated in May 2017, with assistance from The Land Conservancy of New Jersey (TLC-NJ).
- **Water Conservation Education Program:** The Washington Township Municipal Utilities Authority (WTMUA) operates the community water system in the Township and completes water conservation education in conjunction with the Environmental Commission.
- **Environmental Assessment Ordinance:** Washington Township requirements for major land development applications include submission of a Phase I Environmental Site Assessment (ESA), and all items included on the Washington Township Land Development Checklist.
- **Tree Protection Ordinance:** In October 2005, Washington Township Council adopted the Tree Preservation and Maintenance Ordinance, 21-2005, developed by the Environmental Commission and the Planning Board Environmental Engineer. Its purposes are to prevent the indiscriminate destruction of trees and to assure the environmental and health benefits that trees provide.
- **Community Forestry Management Plan:** Washington Township completed and adopted its first Community Forestry Management Plan (CFMP) in 2020. The CFMP was developed through the



combined efforts of staff of the Public Works Department and volunteers from the Open Space Advisory Committee, with the assistance of Remington & Vernick Engineers. Washington Township received a Green Communities Grant from the New Jersey Department of Environmental Protection Forestry Program in 2018, which has assisted in the production of the CFMP.

9.19.3.7 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). In other words, it describes a jurisdiction’s current capabilities to adjust to, protect from, or withstand a future hazard event, future conditions, and changing risk. The table below summarizes the adaptive capacity for each hazard of concern and the jurisdiction’s rating.

Table 9.19-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak*
Coastal Erosion	Moderate
Dam/ Levee	Moderate
Disease Outbreak	Moderate
Drought	Moderate
Earthquake	Moderate
Ext Temp	Moderate
Flood	Moderate
Geologic	Moderate
Hazmat	Moderate
Hurricane	Moderate
Invasive	Moderate
Nor'Easter	Moderate
Severe Weather	Moderate
Severe Winter Weather	Strong
Wildfire	Moderate
Utility Failure	Moderate

*Strong = Capacity exists and is in use, Moderate = Capacity may exist; but is not used or could use some improvement, Weak = Capacity does not exist or could use substantial improvement.

9.19.4 National Flood Insurance Program (NFIP) Compliance

The table below provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the NFIP.



Table 9.19-9. NFIP Summary

NFIP Topic	Comments
Flood Vulnerability Summary	
<ul style="list-style-type: none"> # NFIP Policies: 43 # RL properties: 1 # SRL properties: 0 # RL/SRL mitigated: 0 	<ul style="list-style-type: none"> Total premium in force: \$21,017.00 # claims filed: 9 Total loss payments: \$24,744.89
Describe areas prone to flooding in your jurisdiction.	SFHA
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation, and if so, how many are interested in (elevation or acquisition)?	No
How do you make Substantial Damage determinations? <ul style="list-style-type: none"> How many were declared for recent flood events in your jurisdiction? 	Zoning/Construction makes Substantial Damage determinations. None have been declared for recent events.
Detail any RiskMAP projects currently underway in your jurisdiction.	None
Do your flood hazard maps adequately address the flood risk within your jurisdiction? <ul style="list-style-type: none"> If not, state why. 	Yes.
NFIP Administration	
What local department is responsible for floodplain management?	Administration/zoning. To be changed to zoning and construction.
Are any staff certified floodplain managers (CFMs) or is a consultant retained?	No Township staff. However, consultant municipal engineering firm retains CFMs on staff if needed.
Provide an explanation of who in your municipality provides NFIP administration services (permit review, GIS, education/outreach, inspections, engineering capability).	Permit review: Zoning GIS and engineering through the Township Engineer
What specific training or support does your floodplain management staff need to support its floodplain management program?	Need to revise ordinance and improve training program to determine needs. Have support but need to make sure it is well utilized.
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	Zoning/Construction Department review
Do you have access to resources to determine possible future flooding conditions from climate change?	the Township has GIS data hosted by the Township engineer and is currently starting the mapping of the stormwater system.
NFIP Compliance	
List any outstanding NFIP compliance violations.	None that are known.
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	CAV conducted on July 18, 2006.
What is the local law number or municipal code of your flood damage prevention ordinance? What is the date that your flood damage prevention ordinance was last amended?	Chapter 96, 2016
Does your floodplain management program meet or exceed minimum requirements? <ul style="list-style-type: none"> If exceeds, in what ways? 	Flood damage prevention ordinance requires update to meet state standards.
Are there other local ordinances, plans, or programs (site plan review, consideration of flood risk reduction when granting	Yes. There is a very strong review process at the planning board/zoning board for all major and minor site plans



NFIP Topic	Comments
height variances) that support floodplain management and meeting the NFIP requirements?	and subdivisions which would address any potential flood concerns.
Does your jurisdiction participate in CRS? <ul style="list-style-type: none"> If yes, is your jurisdiction interested in improving its CRS Classification? If no, is your jurisdiction interested in joining the CRS program? 	No

Source: FEMA September 16, 2019; NJDEP - 2021

Notes:

RL—Repetitive Loss; SRL—Severe Repetitive Loss; NA—Not applicable

9.19.5 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 understanding 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 9.19-10. Recent and Expected Future Development

Type of Development	2016		2017		2018		2019		2020		2021	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ outside regulatory floodplain)												
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	34	-	50	-	82	-	63	-	70	-	32	-
Multi-Family	-	-	-	-	-	-	-	-	-	-	-	-
Other (commercial, mixed-use, etc.)	3	-	3	-	2	-	3	-	3	-	1	-
Total Permits Issued	37	-	53	-	84	-	66	-	73	-	33	-
Property or Development Name	Type of Development	# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development				
Recent Major Development and Infrastructure from 2015 to Present												
None identified												
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years												
Lofts at Blackwood	Residential Housing	Six		Block 5, Lot 1 and 1.01		None		Approved by planning and zoning boards				
Wawa	Commercial	One		Block 7, Lot 6.02 and Block 7.04, Lot 6		None		Approved by planning and zoning boards				

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

* Only location-specific hazard zones or vulnerabilities identified.



9.19.6 Jurisdictional Risk Assessment

The hazard profiles in Section 4 (Risk Assessment) provide detailed information regarding each plan participant's vulnerability to the identified hazards. Section 4.1 (Identification of Hazards of Concern), Section 4.2 (Methodology and Tools), and Section 4.4 (Hazard Ranking) provide a detailed summary for the Township of Washington's risk assessment results, and data used to determine the hazard ranking are discussed later in this section.

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

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Figure 9.19-1. Township of Washington Hazard Area Extent and Location Map 1

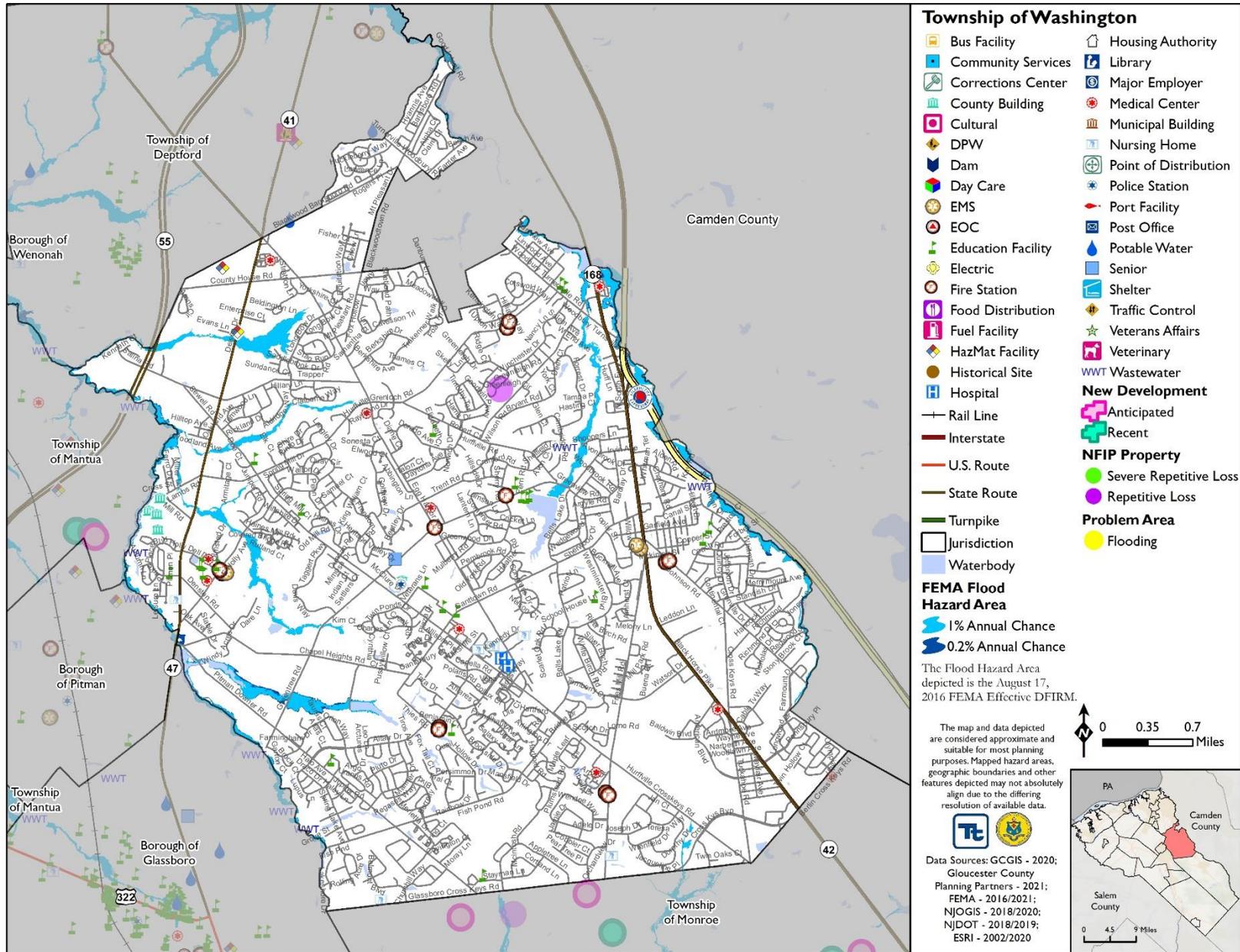




Figure 9.19-2. Township of Washington Hazard Area Extent and Location Map 2

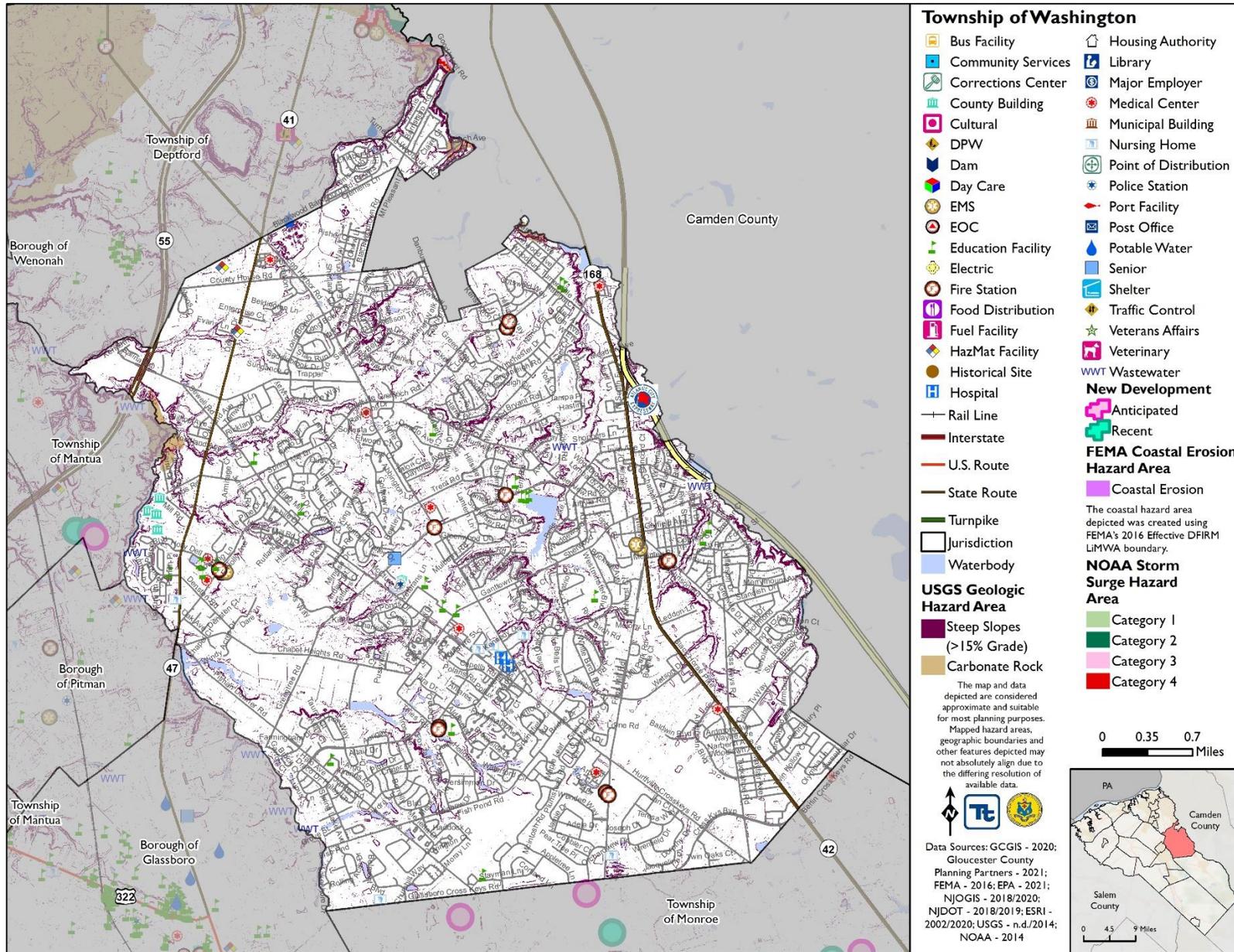




Figure 9.19-3. Township of Washington Hazard Area Extent and Location Map 3

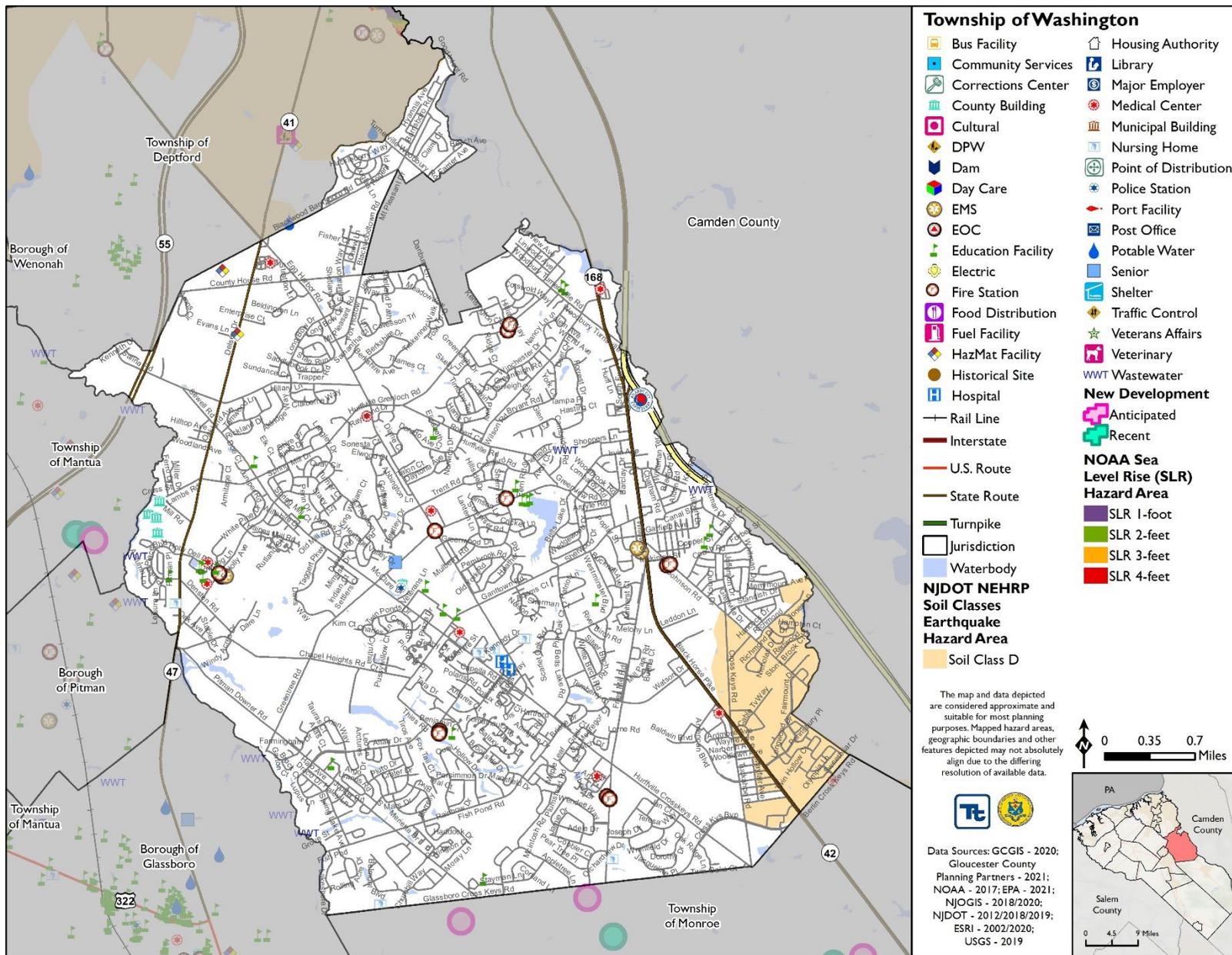
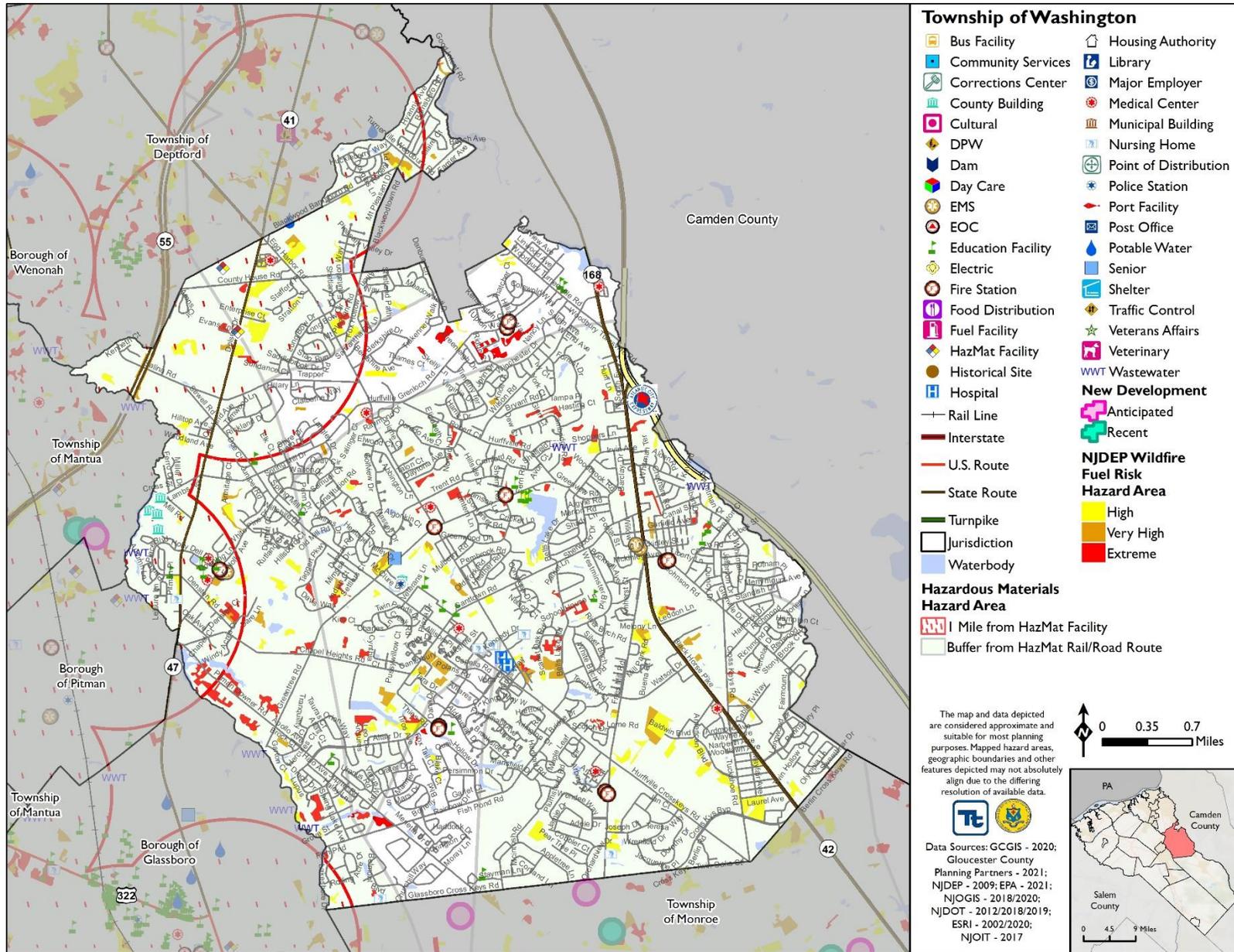




Figure 9.19-4. Township of Washington Hazard Area Extent and Location Map 4





9.19.6.1 Hazard Event History

Gloucester County has a history of natural hazard events as detailed in Section 4 (Risk Assessment) of this plan. 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 Washington’s history of federal declarations (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Gloucester County. The table below provides details regarding municipal-specific loss and damages the Township 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 9.19-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
February 15, 2015	Cold/Wind Chill	No	The center of an arctic air mass brought some of the lowest wind chills and temperatures of the winter season to New Jersey. Wind chill factors were recorded as low as 22 degrees below zero, with actual temperatures reaching -2°F.	Deicing of roads as a result of low temperatures. Costs for municipal labor, equipment, and salt totaling \$18,900.
June 23, 2015	Severe Storm (DR-4231-NJ)	Yes	In Gloucester County, the Red Cross opened two comfort stations. Wind damage was most severe between Greenwich Township and Mantua Township. Lightning struck a refinery in Paulsboro, causing a loss of power and off-gas. In Wenonah, wind damage knocked down several massive oak trees. In Mantua, the microburst knocked down an estimated 2,800 trees and 100 poles. The Township’s Fire Department building was severely damaged. Wind also knocked down power poles in East Greenwich along Kings Highway. Roads throughout East Greenwich were impassable. Damage was estimated at \$10 million.	<i>Damages and losses as a result of downed trees and high winds included: tree removal and cleanup, fencing damages, vehicle damages, recreation facilities damages, roofing damages, etc. Cost for labor and equipment to restore damages inflicted by storm estimated \$531,640.</i>
January 22 – 24, 2016	Severe Winter Storm and Snowstorm (DR-4264-NJ)	Yes	Snow totals in Gloucester County included 21 inches in Deptford, 20.9 inches in Pitman, 17.5 inches in Turnersville, 14.5 inches in Williamstown, and one foot in Mullica Hill.	Snow plowing as a result of winter storm by public works. Costs for municipal labor, equipment, and salt totaling \$40,755.
March 6, 2018	Winter Storm	No	Gloucester County was hit with isolated heavy snow, with totals ranging from five inches in Pitman to 6.5 inches in West Deptford.	Snow plowing as a result of winter storm by public works. Costs for municipal labor, equipment, and salt totaling \$60,575.
January 20, 2020 – Present	Covid-19 Pandemic	Yes	Between March 1, 2020 and March 15, 2021, Gloucester County reported 21,065 confirmed cases of COVID-19, and 530 total fatalities.	Damages and losses as a result of the COVID-19 pandemic include but not limited to: purchasing and



Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
	(EM-3451-NJ) (DR-4488-NJ)			providing PPE, temporary signage and Township owned buildings, cleaning supplies, additional labor for police patrol, etc. Cost incurred during March 2022 September 2020, \$124,635

9.19.6.2 Hazard Ranking and Vulnerabilities

The hazard profiles in Section 4.1 (Identification of Hazards of Concern) of this plan have detailed information regarding each plan participant’s vulnerability to the identified hazards. The following summarizes the Township of Washington’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 Section 4 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 4.4 (Hazard Ranking), each participating jurisdiction can have differing degrees of risk exposure and vulnerability compared with Gloucester County as a whole. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Township of Washington. The Township of Washington reviewed the county hazard risk/vulnerability risk ranking table, including municipal-specific 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 indicated the following:

- The Township changed the hazard ranking for flood from low to high based on the impacts of stormwater flooding.
- The Township changed the hazard ranking for invasive species from low to medium based on past issues with beavers causing flooding impacts on streams and drainage basins.
- The Township agreed with the remainder of the hazard rankings.

Table 9.19-12. Hazard Ranking Input

Coastal Erosion	Dam/ Levee	Disease Outbreak	Drought	Earthquake	Extreme Temperature	Flood
Low	Low	Low	Medium	Low	Medium	High



Geologic	Hazardous Materials	Hurricane	Invasive Species	Nor'Easter	Severe Weather
Low	High	Low	Medium	Medium	High

Severe Winter Weather	Wildfire	Utility Failure
Medium	Low	Medium

Note: The scale is based on the hazard rankings established in Section 4.4 (Hazard Ranking) and modified as appropriate during review by the jurisdiction.

Critical Facilities

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazus estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.19-13. Potential Flood Losses to Critical Facilities

Name	Type	Lifeline?	Exposure		Comment
			1% Event	0.2% Event	
No critical facilities in the floodplain.					

Source: Gloucester County Planning Partners - 2021; HIFLD - 2020; EPA - 2021; FEMA 2016

9.19.6.3 Identified Issues

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

- Various culverts within the Township contribute to flooding and erosion. A full inventory of these culverts and the necessary improvements needs to be completed.
- Leddon Lane experiences flooding. Stormwater improvements are necessary to alleviate these flooding conditions.
- Whitman Drive experiences flooding. Stormwater improvements are necessary to alleviate these flooding conditions.
- Wilson Road experiences flooding. Stormwater improvements are necessary to alleviate these flooding conditions.
- The Police Department roof is degraded and requires replacement. The current roof does not meet high wind standards and could be threatened by damage in large wind or heavy snow events.
- Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Township has one repetitive loss property. Other areas may be floodprone.



- Due to siltation, flood volume and carrying capacity has been lost and dredging is needed to recover the loss to prevent overflowing of basins and potential flooding.
- The Township lacks an adopted Disaster Debris Management Plan.
- The current flood damage prevention ordinance does not meet the state’s recommendation for a code-coordinated flood damage prevention ordinance.

9.19.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

9.19.7.1 Past Mitigation Initiative Status

The following table indicates progress on the community’s mitigation strategy identified in the 2016 HMP. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and are discussed in the ‘Capability Assessment’ presented previously in this annex.

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Table 9.19-14. Status of Previous Mitigation Actions

2016 Action Number and Action Description		Responsible Party	Status (In Progress, No Progress, Ongoing Capability, or Completed)	Include in the 2022 HMP? Check if Yes	Enter 2022 HMP Action #
MJ-1	Alleviate flooding at Pitman Downer Road and Route 47	Municipal OEM, Gloucester County DPW, NJDOT	In Progress. County and NJDOT responsibility		
MJ-2	Alleviate flooding at Fish Pond Road.	Municipal OEM, Glassboro Borough DPW, Gloucester County OEM	Complete. County has made improvements to Fish Pond Road.		
M-01	Identify and pursue outreach and education opportunities	Municipal OEM	Ongoing Capability. OEM handouts at buildings, social media pages, Township website curious		
M-02	Prioritize critical facilities and complete site and facility surveys to identify vulnerabilities and potential mitigation measures.	Municipal OEM and Facility Managers	Ongoing Capability. No flood damage to Township facilities.		
M-03	Prioritize recurrent drainage problem areas and initiate data collection to track unreimbursed damages and related response and recovery expenses.	Municipal OEM and Municipal Working Group	Ongoing capability		
M-04	Conduct Regular Municipal Working Group Meetings	Municipal OEM and Municipal Working Group	Ongoing Capability. Quarterly local emergency planning committee meetings and mayor's monthly meeting.		
M-05	Install permanent backup emergency power generator at Fire Station 10-3M Maintenance Facility on East Holly Avenue (CF-10).	Municipal OEM and Fire Department	Complete		
M-06	Install permanent backup emergency power generator at Public Works Facility (CF-12).	Public Works Department	Complete		
M-07	Install permanent backup emergency power generator at Senior Center (CF-80).	Municipal OEM and Public Works Department	Complete		
M-08	Upgrade permanent backup emergency power generator at Police Department (CF-3).	Municipal OEM and Police Department	Complete		
M-09	Engineering evaluation to assess dam on Spring Lake.	Municipal OEM and Public Works Department	Complete. Dam and spillway repaired and roadway reconstructed.		
M-10	Engineering study to identify upgrades to storm water management system on Palomar Road.	Municipal OEM and Public Works Department	Ongoing Capability. Stormwater system continually being monitored and maintained. County performed		



2016 Action Number and Action Description	Responsible Party	Status (In Progress, No Progress, Ongoing Capability, or Completed)	Include in the 2022 HMP?		
			Check if Yes	Enter 2022 HMP Action #	
		sidewalk work in area on Pitman Downer Road.			
M-11	Stabilize stream bank on Hyannis Drive.	Municipal OEM and Public Works Department	Complete. Initial repairs made and continuing to monitor.		
M-12	Dredge basin on Goodwin Parkway to restore water storage capacity.	Municipal OEM and Public Works Department	In Progress. Dredged previously since last update but need further dredging and maintenance.	X	2022-Washington-007
M-13	Dredge Spring Lake to restore Lake's water storage capacity.	Floodplain Administrator	In Progress. Completing initial study to determine restoration needs.	X	2022-Washington-007
M-14	Improve culvert on Spring Lake Avenue.	Municipal OEM, Public Works Department, and Police Department	Complete		
M-15	Address identified Repetitive Flood Loss Properties.	Floodplain Administrator	In Progress	X	2022-Washington-006
M-16	Harden / retrofit Police Department building to include upgrade to roof (CF-3).	Municipal OEM, Public Works Department, and Police Department	No Progress. Responsibility of Public Works and Engineering.	X	2022-Washington-005

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9.19.7.2 Additional Mitigation Efforts

Other than routine maintenance activities and progress noted in Table 9.19-14, the Township did not undertake any additional mitigation efforts in the last five years.

9.19.7.3 Proposed Hazard Mitigation Initiatives for the HMP Update

The Township of Washington participated in a mitigation action workshop in August 2021 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 Floodprone 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.

Table 9.19-15. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Coastal Erosion	X									X
Dam/Levee	X									X
Disease Outbreak	X									X
Drought	X									X
Earthquake	X									X
Extreme Temperature	X									X
Flood	X	X	X		X			X	X	X
Geologic	X									X
Hazardous Materials	X									X
Hurricane	X									X
Invasive Species	X									X
Nor'Easter	X									X
Severe Weather	X	X	X			X		X	X	X
Severe Winter Weather	X	X				X				X
Wildfire	X									X
Utility Failure	X									X

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

The table below (Table 9.19-16) summarizes the comprehensive range of specific mitigation initiatives the Township of Washington would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide range of activities and mitigation measures selected.

As discussed in Section 6 (Mitigation Strategy), 14 evaluation/prioritization criteria are used 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 your actions as 'High', 'Medium', or 'Low.' The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.19-17 provides a summary of the prioritization of all proposed mitigation initiatives for the HMP update.

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Table 9.19-16. Proposed Hazard Mitigation Initiatives and Associated Priority

Project Number	Mitigation Initiative Name	Description of Problem and Solution	New or Existing Assets?	Hazard(s) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Costs	Timeline	Priority	Mitigation Category	CRS Category
2022-Washington-001	Stormwater Culvert Improvements	<p>Problem: Various culverts within the Township contribute to flooding and erosion. A full inventory of these culverts and the necessary improvements needs to be completed.</p> <p>Solution: The Township Engineer will determine which culverts contribute to flooding and erosion issues and identify the necessary improvements. Township Public Works Department will then replace and upsize the components as necessary.</p>	Existing	Flood, Severe Weather	1, 2	Engineer, DPW	HMGP, BRIC, municipal budget	Reduction in flood risk	High	Within 5 years	High	SIP	SP
2022-Washington-002	Stormwater Improvements on Leddon Lane	<p>Problem: Leddon Lane experiences flooding. Stormwater improvements are necessary to alleviate these flooding conditions.</p> <p>Solution: The Township will explore options to increase the capacity and stormwater services provided to Leddon Lane. Once cost-effective measures are identified, the Township Public Works will implement the improvements.</p>	Existing	Flood, Severe Weather	1, 2	Engineer, DPW	HMGP, BRIC, FMA, Township funds	Increased stormwater efficiency	High	Within 5 years	High	SIP	SP
2022-Washington-003	Stormwater Improvements on Whitman Drive	<p>Problem: Whitman Drive experiences flooding. Stormwater improvements are necessary to alleviate these flooding conditions.</p>	Existing	Flood, Severe Weather	1, 2	Engineer, DPW	HMGP, BRIC, FMA, Township funds	Increased stormwater efficiency	High	Within 5 years	High	SIP	SP



Project Number	Mitigation Initiative Name	Description of Problem and Solution	New or Existing Assets?	Hazard(s) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Costs	Timeline	Priority	Mitigation Category	CRS Category
		Solution: The Township will explore options to increase the capacity and stormwater services provided to Whitman Drive. Once cost-effective measures are identified, the Township Public Works will implement the improvements.											
2022-Washington-004	Stormwater Improvements on Wilson Road	Problem: Wilson Road experiences flooding. Stormwater improvements are necessary to alleviate these flooding conditions. Solution: The Township will explore options to increase the capacity and stormwater services provided to Wilson Road. Once cost-effective measures are identified, the Township Public Works will implement the improvements.	Existing	Flood, Severe Weather	1, 2	Engineer, DPW	HMGP, BRIC, FMA, Township funds	Increased stormwater efficiency	High	Within 5 years	High	SIP	SP
2022-Washington-005	Retrofit Police Department Roof	Problem: The Police Department roof is degraded and requires replacement. The current roof does not meet high wind standards and could be threatened by damage in large wind or heavy snow events. Solution: The Township will replace the roof of the Police Department with a roof designed to withstand high wind events and heavy snow loading requirements.	Existing	Severe Weather, Severe Winter Weather	1, 2, 5	Engineering, Public Works Department, and Police Department	HMGP, BRIC, USDA Community Facilities Grant Program, Township budget	Protection of critical facility from wind/snow damages	High	2 years	High	SIP	PP



Project Number	Mitigation Initiative Name	Description of Problem and Solution	New or Existing Assets?	Hazard(s) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Costs	Timeline	Priority	Mitigation Category	CRS Category
2022-Washington-006	Address Repetitive Loss Properties	<p>Problem: Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Township has one repetitive loss property. Other areas may be floodprone.</p> <p>Solution: Conduct outreach to 10 flood-prone property owners, including RL/SRL property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving/elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas).</p>	Existing	Flood, Severe Weather	1, 2	NFIP Floodplain Administrator, supported by homeowners	FEMA HMGP and FMA, local cost share by residents	Eliminates flood damage to homes and residents, creates open space for the municipality increasing flood storage.	\$6 Million	3 years	High	SIP	PP
2022-Washington-007	Dredging of Stormwater Basins and Waterways to Reduce Stormwater Storage	<p>Problem: Due to siltation, flood volume and carrying capacity has been lost and dredging is needed to recover the loss to prevent overflowing of basins and potential flooding.</p> <p>Solution: The Township will survey stormwater basins and waterways to determine which require</p>	Existing	Flood	1, 2	Engineering/DPW	Township budget	Flood risk reduced; natural system restored	High	Within 5 years	Medium	SIP, NSP	SP, NR



Project Number	Mitigation Initiative Name	Description of Problem and Solution	New or Existing Assets?	Hazard(s) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Costs	Timeline	Priority	Mitigation Category	CRS Category
		redging to restore former flood storage capacity.											
2022-Washington-008	Develop Disaster Debris Management Plan	<p>Problem: The Township lacks an adopted Disaster Debris Management Plan.</p> <p>Solution: The Township will complete and adopt the in-progress Disaster Debris Management Plan.</p>	Existing	All Hazards	5	Public Works, OEM	Township budget	Increased planning for post-disaster response and cleanup.	Staff time	6 months	High	LPR	ES
2022-Washington-009	Update the Flood Damage Prevention Ordinance	<p>Problem: The current flood damage prevention ordinance does not meet the state's recommendation for a code-coordinated flood damage prevention ordinance.</p> <p>Solution: The Township will update the flood damage prevention ordinance using the NJ DEP's model code coordinated ordinance to create better coordination between NFIP implementation by the floodplain administrator, 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 Construction Official.</p>	New	Flood	1, 2	Floodplain Administrator, Administration	Township budget	Meet state and FEMA standards for flood damage prevention, reduce flood risk on new development	Staff time	6 months	Medium	LPR	PR

Notes:
Not all acronyms and abbreviations defined below are included in the table.



Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
EHP	Environmental Planning and Historic Preservation
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable
NFIP	National Flood Insurance Program
OEM	Office of Emergency Management

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
BRIC	Building Resilient Infrastructure and Communities Program

Timeline:

The time required for completion of the project upon implementation

Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Mitigation Category:

- *Local Plans and Regulations (LPR) – These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.*
- *Structure and Infrastructure Project (SIP) - These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct manmade structures to reduce the impact of hazards.*
- *Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also preserve or restore the functions of natural systems.*
- *Education and Awareness Programs (EAP) – These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities.*

CRS Category:

- *Preventative Measures (PR) - Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.*
- *Property Protection (PP) - These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.*
- *Public Information (PI) - Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.*
- *Natural Resource Protection (NR) - Actions that minimize hazard loss and also preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.*
- *Structural Flood Control Projects (SP) - Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.*
- *Emergency Services (ES) - Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities.*



Table 9.19-17. Summary Evaluation and Action Priority

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
2022-Washington-001	Stormwater Culvert Improvements	1	1	0	1	1	1	0	1	1	1	1	0	1	1	11	High
2022-Washington-002	Stormwater Improvements on Leddon Lane	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2022-Washington-003	Stormwater Improvements on Whitman Drive	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2022-Washington-004	Stormwater Improvements on Wilson Road	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2022-Washington-005	Retrofit Police Department Roof	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2022-Washington-006	Address Repetitive Loss Properties	1	1	1	1	1	1	0	1	0	0	1	0	1	1	10	High
2022-Washington-007	Dredging of Stormwater Basins and Waterways to Reduce Stormwater Storage	0	1	1	1	1	0	0	1	1	1	0	0	1	1	9	High
2022-Washington-008	Develop Disaster Debris Management Plan	0	1	1	1	1	1	1	1	1	1	1	1	1	1	13	High
2022-Washington-009	Update the Flood Damage Prevention Ordinance	0	1	1	1	1	1	1	1	1	1	0	1	1	1	12	High

Note: Section 6 (Mitigation Strategy), which conveys guidance on prioritizing mitigation actions.

Low (0-4), Medium (5-8), High (9-14).

This action has been identified as being of highest importance to the municipality and an action that the municipality would like to complete as soon as funding is received.



9.19.8 Action Worksheets

The following action worksheets have been developed by the Township of Washington to aid in the submittal of grant applications to support the funding of high priority proposed actions. The State of New Jersey requires at least two projects be developed with action worksheets.

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Action Worksheet			
Project Name:	Stormwater Culvert Improvements		
Project Number:	2022-Washington-001		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Weather		
Description of the Problem:	Various culverts within the Township contribute to flooding and erosion. A full inventory of these culverts and the necessary improvements needs to be completed.		
Action or Project Intended for Implementation			
Description of the Solution:	The Township Engineer will determine which culverts contribute to flooding and erosion issues and identify the necessary improvements. Township Public Works Department will then replace and upsize the components as necessary.		
Is this project related to a Critical Facility or Lifeline?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Level of Protection:	TBD by size selected	Estimated Benefits (losses avoided):	Reduction in flood risk
Useful Life:	30 years	Goals Met:	1, 2
Estimated Cost:	High	Mitigation Action Type:	Structure and Infrastructure Projects
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within 5 years
Estimated Time Required for Project Implementation:	6 months	Potential Funding Sources:	HMGP, BRIC, municipal budget
Responsible Organization:	Engineer, DPW	Local Planning Mechanisms to be Used in Implementation if any:	Hazard mitigation planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Elevate roadway	\$500,000	Costly and may not solve problem
	Relocate roadway	N/A	Not possible
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Stormwater Culvert Improvements	
Project Number:	2022-Washington-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Protects life from flooding.
Property Protection	1	Protects culvert from flood damage
Cost-Effectiveness	0	
Technical	1	Technically feasible project
Political	1	
Legal	1	The Township has the legal authority to conduct the project.
Fiscal	0	Project will require grant funding.
Environmental	1	
Social	1	Project would reduce flooding impacts
Administrative	1	
Multi-Hazard	1	Flood, Severe Weather
Timeline	0	Within 5 years
Agency Champion	1	Engineer, DPW
Other Community Objectives	1	
Total	10	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Stormwater Improvements on Leddon Lane		
Project Number:	2022-Washington-002		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Weather		
Description of the Problem:	Leddon Lane experiences flooding. Stormwater improvements are necessary to alleviate these flooding conditions.		
Action or Project Intended for Implementation			
Description of the Solution:	The Township will explore options to increase the capacity and stormwater services provided to Leddon Lane. Once cost-effective measures are identified, the Township Public Works will implement the improvements.		
Is this project related to a Critical Facility or Lifeline?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Level of Protection:	TBD by selected improvements	Estimated Benefits (losses avoided):	Increased stormwater efficiency
Useful Life:	30 years	Goals Met:	1, 2
Estimated Cost:	High	Mitigation Action Type:	Structure and Infrastructure Projects
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within 5 years
Estimated Time Required for Project Implementation:	6 months	Potential Funding Sources:	HMGP, BRIC, Township budget
Responsible Organization:	Engineer, DPW	Local Planning Mechanisms to be Used in Implementation if any:	Hazard mitigation planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Elevate roadway	\$500,000	Costly and may not solve problem
	Relocate roadway	N/A	Not possible
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Stormwater Improvements on Leddon Lane	
Project Number:	2022-Washington-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Protects life from flooding.
Property Protection	1	Protects property from flood damage
Cost-Effectiveness	1	
Technical	1	Technically feasible project
Political	1	
Legal	1	The Township has the legal authority to conduct the project.
Fiscal	0	Project will require grant funding.
Environmental	1	
Social	1	Project would reduce flooding impacts
Administrative	1	
Multi-Hazard	1	Flood, Severe Weather
Timeline	0	Within 5 years
Agency Champion	1	Engineer, DPW
Other Community Objectives	1	
Total	10	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Stormwater Improvements on Whitman Drive		
Project Number:	2022-Washington-003		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Weather		
Description of the Problem:	Whitman Drive experiences flooding. Stormwater improvements are necessary to alleviate these flooding conditions.		
Action or Project Intended for Implementation			
Description of the Solution:	The Township will explore options to increase the capacity and stormwater services provided to Whitman Drive. Once cost-effective measures are identified, the Township Public Works will implement the improvements.		
Is this project related to a Critical Facility or Lifeline?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Level of Protection:	TBD by selected improvements	Estimated Benefits (losses avoided):	Increased stormwater efficiency
Useful Life:	30 years	Goals Met:	1, 2
Estimated Cost:	High	Mitigation Action Type:	Structure and Infrastructure Projects
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within 5 years
Estimated Time Required for Project Implementation:	6 months	Potential Funding Sources:	HMGF, BRIC, Township budget
Responsible Organization:	Engineer, DPW	Local Planning Mechanisms to be Used in Implementation if any:	Hazard mitigation planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Elevate roadway	\$500,000	Costly and may not solve problem
	Relocate roadway	N/A	Not possible
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Stormwater Improvements on Whitman Drive	
Project Number:	2022-Washington-003	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Protects life from flooding.
Property Protection	1	Protects property from flood damage
Cost-Effectiveness	1	
Technical	1	Technically feasible project
Political	1	
Legal	1	The Township has the legal authority to conduct the project.
Fiscal	0	Project will require grant funding.
Environmental	1	
Social	1	Project would reduce flooding impacts
Administrative	1	
Multi-Hazard	1	Flood, Severe Weather
Timeline	0	Within 5 years
Agency Champion	1	Engineer, DPW
Other Community Objectives	1	
Total	10	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Stormwater Improvements on Wilson Road		
Project Number:	2022-Washington-004		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Weather		
Description of the Problem:	Wilson Road experiences flooding. Stormwater improvements are necessary to alleviate these flooding conditions.		
Action or Project Intended for Implementation			
Description of the Solution:	The Township will explore options to increase the capacity and stormwater services provided to Wilson Road. Once cost-effective measures are identified, the Township Public Works will implement the improvements.		
Is this project related to a Critical Facility or Lifeline?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Level of Protection:	TBD by selected improvements	Estimated Benefits (losses avoided):	Increased stormwater efficiency
Useful Life:	30 years	Goals Met:	1, 2
Estimated Cost:	High	Mitigation Action Type:	Structure and Infrastructure Projects
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within 5 years
Estimated Time Required for Project Implementation:	6 months	Potential Funding Sources:	HMGP, BRIC, Township budget
Responsible Organization:	Engineer, DPW	Local Planning Mechanisms to be Used in Implementation if any:	Hazard mitigation planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Elevate roadway	\$500,000	Costly and may not solve problem
	Relocate roadway	N/A	Not possible
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Stormwater Improvements on Wilson Road	
Project Number:	2022-Washington-004	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Protects life from flooding.
Property Protection	1	Protects property from flood damage
Cost-Effectiveness	1	
Technical	1	Technically feasible project
Political	1	
Legal	1	The Township has the legal authority to conduct the project.
Fiscal	0	Project will require grant funding.
Environmental	1	
Social	1	Project would reduce flooding impacts
Administrative	1	
Multi-Hazard	1	Flood, Severe Weather
Timeline	0	Within 5 years
Agency Champion	1	Engineer, DPW
Other Community Objectives	1	
Total	10	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Retrofit Roofs on Critical Facilities to Withstand High Winds		
Project Number:	2022-South Harrison-005		
Risk / Vulnerability			
Hazard(s) of Concern:	Severe Weather, Severe Winter Weather		
Description of the Problem:	The Police Department roof is degraded and requires replacement. The current roof does not meet high wind standards and could be threatened by damage in large wind or heavy snow events.		
Action or Project Intended for Implementation			
Description of the Solution:	The Township will replace the roof of the Police Department with a roof designed to withstand high wind events and heavy snow loading requirements.		
Is this project related to a Critical Facility or Lifeline?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Level of Protection:	500-year wind event	Estimated Benefits (losses avoided):	Protection of critical facility from wind/snow damages
Useful Life:	25 years	Goals Met:	1, 2, 5
Estimated Cost:	High	Mitigation Action Type:	Structure and Infrastructure Project
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	2 years
Estimated Time Required for Project Implementation:	1 year	Potential Funding Sources:	HMGP, BRIC, USDA Community Facilities Grant Program, Township budget
Responsible Organization:	Engineering, Public Works Department, and Police Department	Local Planning Mechanisms to be Used in Implementation if any:	Hazard mitigation
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Build Police Department	High	Costly, unnecessary
	Build backup Police Department of failure	High	Costly, facility unlikely to be used
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Retrofit Police Department Roof	
Project Number:	2022-Washington-005	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Protects critical services of Police Department
Property Protection	1	Protects building from wind and snow damages
Cost-Effectiveness	1	
Technical	1	The project is technically feasible
Political	1	
Legal	1	The Township has the legal authority to complete the project
Fiscal	0	The project requires funding support
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Severe Weather, Severe Winter Weather
Timeline	1	2 years
Agency Champion	1	Engineering, Public Works Department, and Police Department
Other Community Objectives	1	
Total	13	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Address Repetitive Loss Properties		
Project Number:	2022-Washington-006		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Weather		
Description of the Problem:	Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Township has 1 repetitive loss property, but other properties may be impacted by flooding as well.		
Action or Project Intended for Implementation			
Description of the Solution:	Conduct outreach to 10 flood-prone property owners, including RL/SRL property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving/elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas).		
Is this project related to a Critical Facility or Lifeline?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Level of Protection:	1% annual chance flood event + freeboard (in accordance with flood ordinance)	Estimated Benefits (losses avoided):	Eliminates flood damage to homes and residents, creates open space for the municipality increasing flood storage.
Useful Life:	Acquisition: Lifetime Elevation: 30 years (residential)	Goals Met:	1, 2
Estimated Cost:	13Million	Mitigation Action Type:	Structure and Infrastructure Project
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	6-12 months
Estimated Time Required for Project Implementation:	Three years	Potential Funding Sources:	FEMA HMGP and FMA, local cost share by residents
Responsible Organization:	NFIP Floodplain Administrator, supported by homeowners	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Elevate homes	\$500,000	When this area floods, the entire area is impacted; elevating homes would not eliminate the problem and still lead to road closures and impassable roads
	Elevate roads	\$500,000	Elevated roadways would not protect the homes from flood damages
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Address Repetitive Loss Properties	
Project Number:	2022-Washington-006	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Families moved out of high-risk flood areas.
Property Protection	1	Properties removed from high-risk flood areas.
Cost-Effectiveness	1	Cost-effective project
Technical	1	Technically feasible project
Political	1	
Legal	1	The Township has the legal authority to conduct the project.
Fiscal	0	Project will require grant funding.
Environmental	1	
Social	0	Project would remove families from the flood prone areas of the Township.
Administrative	0	
Multi-Hazard	1	Flood, Severe Weather
Timeline	0	
Agency Champion	1	NFIP Floodplain Administrator, supported by homeowners
Other Community Objectives	1	
Total	10	
Priority (High/Med/Low)	High	