



SECTION 9. JURISDICTIONAL ANNEXES

9.39 TOWNSHIP OF WILLINGBORO

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

9.39.1 Hazard Mitigation Planning Team

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

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

Table 9.39-1. Hazard Mitigation Planning Team

Primary Point of Contact		Alternate Point of Contact	
Name/Title:	Richard Wilson III, DPW Asst. Supervisor	Name/Title:	Richard Brevogel, DPW Consultant
Address:	One Rev. Dr. Martin Luther King Jr. Dr., Willingboro, NJ 08046	Address:	One Rev. Dr. Martin Luther King Jr. Dr., Willingboro, NJ 08046
Phone Number:	(609) 667-3531	Phone Number:	(609) 468-4053
Email:	rwilsonIII@willingboronj.gov	Email:	rbrevogel@willingboronj.gov
NFIP Floodplain Administrator			
Name/Title:	Hugh J. Dougherty, Township Engineer		
Address:			
Phone Number:			
Email:	HDougherty@Pennoni.com		
Additional Contributors:			
Name/Title:	Kenneth Shine/CFM		



Method of Participation:	Provided key input to support the planning process
Name/Title:	
Method of Participation:	
Name/Title:	
Method of Participation:	
Name/Title:	
Method of Participation:	

9.39.2 Municipal Profile

The Township of Willingboro is located in the northwestern portion of Burlington County along the Rancocas River. The Township encompasses 8.150 square miles, including 7.738 square miles of land and 0.412 square miles of water. The Township is bordered by Route 130 on the north, Rancocas Creek on the west, Westampton Township on the south, and Burlington Township on the east.

The Township of Willingboro is governed under the Council-Manager (Faulkner Act) form of government. Under this form, the council is the legislative body of the municipality but also appoints the positions of Municipal Clerk, Tax Assessor and well as provides for appointments of members of Boards, Commissions and Authorities. Perhaps most importantly, the council appoints a qualified manager to serve as the chief executive.

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

According to the U.S. Census, the 2020 population for the Township of Willingboro was 31,889, a 0.8 percent increase from the 2010 Census. Data from the 2021 American Community Survey 5-Year Population Estimates indicate that 17.9 percent is 65 years of age or older, 6.0 percent of the population is 5 years of age or younger, 1.7 percent is non-English speaking, 16 percent has a disability, and 8.4 percent is below the poverty level. Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

9.39.3 Jurisdictional Capability Assessment and Integration

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

- An assessment of legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.



- The community's adaptive capacity to withstand hazard events.

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

Planning, Legal, and Regulatory Capability and Integration

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

Table 9.39-2. Planning, Legal, and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
Codes, Ordinances, & Regulations				
Building Code	Yes	Chapter 199 Housing Standards, Chapter 272 Property Maintenance	State, Local	Inspection Team
<i>How does this reduce risk?</i> Properties are screened for location relative to identified flood zones. The code reduces risk by requiring compliance with current building and flood damage prevention codes.				
Zoning/Land Use Code	Yes	Chapter 370 Zoning	Local	Zoning Officer, Zoning Board of Adjustment
<i>How does this reduce risk?</i> The code enables where appropriate, flexibility of design and development of land in such a manner as to preserve its natural and scenic qualities, protect areas of meaningful ecological value, reduce flood hazards, facilitate the adequate and economical provision of streets and utilities, minimize negative environmental impacts, improve the aesthetic quality of new residential developments, encourage the conservation of energy, increase recreational opportunities, and otherwise promote the planned and environmentally desirable use of land.				
Subdivision Ordinance	Yes	Chapter 205 Land Subdivision and Site Plan Review	State, Local	Planning Board
<i>How does this reduce risk?</i> Subdivision applications are reviewed for compliance with DEP standards that may be applicable including stormwater management, site remediation, hazardous materials, and threatened and endangered species and habitats.				
Site Plan Ordinance	Yes	Chapter 205 Land Subdivision and Site Plan Review	State, Local	Planning Board
<i>How does this reduce risk?</i> Applications are reviewed for compliance with DEP standards that may be applicable including stormwater management, site remediation, hazardous materials, and threatened and endangered species and habitats.				
Stormwater Management Ordinance	Yes	Chapter 324 Stormwater Control	State, Local	Township Engineer
<i>How does this reduce risk?</i>				



	Jurisdiction has this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
The ordinance is to establish storm water management requirements and controls for “major developments” as defined by NJDEP. An updated Stormwater Management Ordinance is expected to be adopted in 2024 that will provide for more effective runoff control.				
Post-Disaster Recovery/ Reconstruction Ordinance	No	-	-	-
<i>How does this reduce risk?</i>				
Real Estate Disclosure	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property
<i>How does this reduce risk?</i>				
<p>For leases, the law amends the New Jersey Truth-in-Renting Act, N.J.S.A. 46:8-43 et seq., to require every landlord to notify in writing each of the landlord’s tenants, prior to lease signing or renewal, whether the property is located in the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area (“100-year floodplain”) or Moderate Risk Flood Hazard Area (“500-year floodplain”) and if the landlord has actual knowledge that the rental premises or any portion of the parking areas of the real property containing the rental premises has been subjected to flooding. The law does not apply to (1) landlords who lease commercial space or residential dwellings for less than one month, (2) residential dwellings in a premises containing not more than two units, (3) owner-occupied premises containing not more than three units, or (4) hotels, motels, or other guest houses serving transient or seasonal guests for a period of less than 120 days.</p> <p>The model notice is to contain the heading “Flood Risk” and questions for the landlord to answer regarding the landlord’s actual knowledge of past flooding of the property. The questions regarding the property being in a FEMA Special or Moderate Risk Flood Hazard Area shall not contain the option for “unknown.” To determine how the questions are to be answered, FEMA’s current flood insurance rate maps for the leased premises area must be consulted. The landlord will be required to answer whether the rental premises or any portions of the parking areas of the real property containing the rental premises ever experienced any flood damage, water seepage, or pooled water due to a natural flood event and, if so, the number of times that has occurred.</p> <p>The notice to residential tenants must also indicate that flood insurance may be available to renters through FEMA’s National Flood Insurance Program to cover their personal property and contents in the event of a flood and that standard renter’s insurance does not typically cover flood damage.</p> <p>For sales, the law also amends the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-1 et seq., to require sellers of real property to disclose, on the property condition disclosure statement, whether the property is located in the FEMA Special or Moderate Risk Flood Hazard Area and any actual knowledge of the seller concerning flood risks of the property to the purchaser before the purchaser becomes obligated under any contract for the purchase of the property.</p> <p>The disclosure statement must contain the heading “Flood Risk” and ask the seller the following questions:</p> <ul style="list-style-type: none"> • Is any or all of the property in the Special Flood Hazard Area (“100-year floodplain”) or a Moderate Risk Flood Hazard Area (“500-year floodplain”) according to FEMA’s current flood insurance rate maps? • Is the property subject to any requirement under federal law to obtain and maintain flood insurance on the property? Properties in the Special Flood Hazard Area with mortgages from federally regulated or insured lenders are required to obtain and maintain flood insurance. • Have you ever received assistance from, or are you aware of any previous owners receiving assistance from FEMA, the U.S. Small Business Administration, or any other federal disaster flood assistance for flood damage on the property? For properties that have received flood disaster assistance, the requirement to obtain flood insurance passes down to all future owners. • Is there flood insurance on the property? A standard homeowner’s insurance policy typically does not cover flood damage. • Is there a FEMA elevation certificate available for the property? If so, it must be shared with the buyer. An elevation certificate is a FEMA form, completed by a licensed surveyor or engineer, that provides critical information about the flood risk of the property and is used by flood insurance providers to determine the appropriate insurance rating for the property. • Have you ever filed a claim for flood damage to the property with any insurance provider? If the claim was approved, what was the amount received? • Has the property experienced any flood damage, water seepage, or pooled water due to a natural flood event, such as heavy rainfall, coastal storm surge, tidal inundation, or river overflow? If so, how many times? 				



	Jurisdiction has this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
Not all provisions of this law have become effective at the time of the writing of this plan.				
Growth Management	No	-	-	-
<i>How does this reduce risk?</i>				
Environmental Protection Ordinance	No	-	-	-
<i>How does this reduce risk?</i>				
Flood Damage Prevention Ordinance	Yes	Chapter 175 Flood Damage Prevention	Federal, State, Local	Township Manager, Construction Official
<i>How does this reduce risk?</i>				
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"> A. Protect human life and health; B. Minimize expenditure of public money for costly flood control projects; C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public; D. Minimize prolonged business interruptions; E. Minimize damage to public facilities and utilities, such as water and gas mains, electric, telephone and sewer lines, streets, bridges located in areas of special flood hazard; F. Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas; G. Ensure that potential buyers are notified that property is in an area of special flood hazard; and H. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions. 				
The Township has not adopted NJDEP's Model Code Coordinated Ordinance.				
Wellhead Protection	No	-	-	-
<i>How does this reduce risk?</i>				
Emergency Management Ordinance	No	-	-	-
<i>How does this reduce risk?</i>				
Climate Change Ordinance	No	-	-	-
<i>How does this reduce risk?</i>				
Other	No	-	-	-
<i>How does this reduce risk?</i>				
Planning Documents				
Comprehensive/Master Plan	Yes	Master Plan of the Township of Willingboro, April 1997; Reexamined April 2018	Local	Planning Board
<i>How does this reduce risk?</i>				
The Master Plan anticipates regulation of various protected areas to discourage development and/or account for proper building methods within flood hazard areas while providing for future growth.				



	Jurisdiction has this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
Capital Improvement Plan	Yes	Capital Improvements Plan, May 2018	Local	Township Manager, Planning Board
<i>How does this reduce risk?</i> The CIP is a tool that can fund a variety of flood mitigation and stormwater upgrade improvements.				
Disaster Debris Management Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Floodplain Management or Watershed Plan	Yes	Master Plan of the Township of Willingboro Conservation Plan Element, April 1997; Reexamined April 2018	Local	Planning Board
<i>How does this reduce risk?</i> Permit applications are reviewed for location in AE Zone and compliance with stormwater and flood damage prevention ordinances. If the project is a Substantial Improvement or New Construction and is in an AE Zone, flood mitigation measures would be enforced as required.				
Stormwater Management Plan	Yes	Municipal Stormwater Management Plan, February 2005; Revised November 2007	Local	Public Works
<i>How does this reduce risk?</i> The Stormwater Management Plan reduces risk by establishing guidelines for responsible development and redevelopment. A new Stormwater Control Ordinance is expected to be adopted in 2024 that will provide for more effective runoff control.				
Stormwater Pollution Prevention Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Open Space Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Urban Water Management Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Habitat Conservation Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Economic Development Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Shoreline Management Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Community Wildfire Protection Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Community Forest Management Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Transportation Plan	Yes	Master Plan of the Township of Willingboro Circulation Plan	Local	Planning Board



	Jurisdiction has this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
		Element, April 1997; Reexamined April 2018		
<i>How does this reduce risk?</i>				
The circulation element of the Master Plan provides a description and analysis of the transportation system that serves the Township, including the street network, streetscape, sidewalks, and pathways.				
Agriculture Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Climate Action/ Resiliency/Sustainability Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Tourism Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Business/ Downtown Development Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Other	No	-	-	-
<i>How does this reduce risk?</i>				
Response/Recovery Planning				
Emergency Operations Plan	Yes	Willingboro EOP, XXXX	Local	OEM
<i>How does this reduce risk?</i>				
The current EOP outlines Plans and Procedures for each Department or Agency.				
Continuity of Operations Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Strategic Recovery Planning Report	No	-	-	-
<i>How does this reduce risk?</i>				
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	-	-
<i>How does this reduce risk?</i>				
Post-Disaster Recovery Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Public Health Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Other	No	-	-	-
<i>How does this reduce risk?</i>				



Development and Permitting Capability

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

Table 9.39-3. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Yes/No	Comment:
Do you issue development permits? • If yes, what department is responsible?	Yes	Inspections Team
If you do not issue development permits, what is your process for tracking new development?	N/A	-
Are permits tracked by hazard area? (For example, floodplain development permits.)		
Do you have a buildable land inventory? • If yes, please describe		
Describe the level of build-out in your jurisdiction.	N/A	

Administrative and Technical Capability

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

Table 9.39-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comments (available staff, responsibilities, support of hazard mitigation)
Administrative Capability		
Planning Board	Yes	<p>The Planning Board consists of seven members. The Planning Board has the following powers and duties:</p> <ul style="list-style-type: none"> To make and adopt and from time to time amend a Master Plan for the physical development of the Township. To administer the provisions of Chapter 205, Land Subdivision and Site Plan Review, of the Code of the Township of Willingboro in accordance with the provisions of such ordinances, the Official Map, and the Municipal Land Use Law. To issue permits for conditional uses. To issue permits for variances and permits. To participate in the preparation and review of programs or plans. To assemble data on a continuing basis as a part of a continuous planning process.



Resources	Available? (Yes/No)	Comments (available staff, responsibilities, support of hazard mitigation)
		<ul style="list-style-type: none"> To annually prepare a program of Township capital improvement projects projected over a term of six years.
Zoning Board of Adjustment	Yes	<p>The Zoning Board of Adjustment consists of seven members. The Zoning Board of Adjustment has the following powers and duties:</p> <ul style="list-style-type: none"> Hear and decide appeals. Hear and decide requests for interpretation of the Zoning Map or Chapter 370, Zoning. Grant variances and conditional use approvals. Direct issuance of a permit for a building or structure in the bed of a mapped street or public drainageway, flood-control basin or public area reserved on the Official Map. Direct issuance of a permit for a building or structure not related to a street.
Planning Department	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	Yes	Composed of five to seven residents who serve as volunteers, the Environmental Commissions advises the local government and acts as advisors and advocates for environmental problems and opportunities. The Environmental Commission has a primary duty to provide the governing body of knowledge required to evaluate the needs of the municipality as it relates to environmental quality.
Open Space Board/Committee	No	-
Economic Development Commission/Committee	Yes	<p>The members of the Willingboro Economic Development Committee are responsible to recommend to Council effective strategies that will aid in the development of and implementation of an overall Township economic development plan and shall perform related duties as required, including but not limited to:</p> <ul style="list-style-type: none"> Prepare and recommend to Council for review and action economic development policies and strategies for the diversification of the local economy. Make recommendations to Council regarding the impact of local and state legislation upon businesses. Make recommendations to Council on the administration of the economic development program/plan. Conduct related research of business needs and trends observed in the Township.



Resources	Available? (Yes/No)	Comments (available staff, responsibilities, support of hazard mitigation)
		<ul style="list-style-type: none"> Submit an annual report to Council on the Committee's work and progress. Provide recommendations to the Township Council for assistance to local businesses. <p>Act as a liaison for the Council with the Greater Willingboro Association and other applicable associations/organizations as necessary.</p>
Public Works/Highway Department	Yes	The Willingboro Department of Public Works (DPW) responsibilities include but is not limited to overseeing trash collection, bulk waste pick-up, snow removal, leaf collection, brush pick-up, recycling collection, stormwater, and street sweeping.
Construction/Building/Code Enforcement Department	Yes	The Inspections Team is comprised of approximately 20 individuals which include Code Enforcement Officers, a Zoning Official, Construction Officials, and a host of other professional and administrative personnel dedicated to ensuring that all properties in Willingboro are maintained in a safe and sanitary manner. The inspections Team ensures that all construction work in the Township complies with the requirements of the New Jersey Uniform Construction Code. Additionally, the department also inspects for compliance to the Township code and enforces the Township's property maintenance and other zoning standards. Code Enforcement Officers inspect residential and commercial properties for critical maintenance issues, such as landscaping issues, trash, hazardous debris, and unsanitary conditions; Officers also conduct housing, rental, resale, and zoning inspections. The Construction Official has the responsibility to ensure compliance with the New Jersey Uniform Construction Code. As such the Official reviews permit applications, reviews violations notices and assigns penalties when appropriate.
Emergency Management/Public Safety Department	Yes	The Public Safety Department is led by Captain Ian Bucs. He is responsible for the overall supervision of the Willingboro Police Department, the Fire Department, the Emergency Squad, and the Office of Emergency Management.
Warning Systems / Services (mass notification system, outdoor warning signals, etc.)	Yes	The Township utilizes CivicReady, Nixle, and Nextdoor to send warnings, advisories, alerts, and notifications to its residents.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	The Willingboro Department of Public Works (DPW) responsibilities include but is not limited to overseeing trash collection, bulk waste pick-up, snow removal, leaf collection, brush pick-up, recycling collection, stormwater, and street sweeping.
Mutual aid agreements	Yes	County Mutual Aid agreements for response grids



Resources	Available? (Yes/No)	Comments (available staff, responsibilities, support of hazard mitigation)
Human Resources Manual <i>e.g., Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?</i>	Yes	No job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk.
Other	No	-
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices		
Engineers or professionals trained in building or infrastructure construction practices		
Planners or engineers with an understanding of natural hazards		
Staff with expertise or training in benefit/cost analysis		
Professionals trained in conducting damage assessments		
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications		
Environmental scientist familiar with natural hazards		
Surveyor(s)		
Emergency Manager	Yes	The Willingboro Office of Emergency Management is housed under the Department of Public Safety. The Office is responsible to develop and implement plans and policies related to the emergency management cycle. The Director of the Office of Emergency Management (the OEM Coordinator) is John Carroll.
Grant writer(s) <i>Consider the following - Are data and maps from the HMP used to support documentation in grant applications?</i>		
Resilience Officer		
Other (this could include stormwater engineer, environmental specialist, etc.)		

Fiscal Capability

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

Table 9.39-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	Yes
Stormwater utility fee	No



Financial Resources	Accessible or Eligible to Use? (Yes/No)
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	Yes
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

Education and Outreach Capability

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

Table 9.39-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment:
Public information officer or communications office	Yes	<p>The Communications Department is responsible for coordinating a comprehensive effort to inform the public of the Township's goals, plans, and activities through various media outlets. This is achieved by overseeing, guiding, planning, and coordinating all communication products including printed materials, photos/videos, website, and social media postings.</p> <p>The Communications Department ensures that all media and communications successfully reach the intended audience. The Department provides the latest on events and activities, Township closures, and community notices in Willingboro and other surrounding areas.</p>
Personnel skilled or trained in website development	Yes	Website development is contracted.
Hazard mitigation information available on your website	Yes	This information is available on the Emergency Management Preparedness webpage.
Social media for hazard mitigation education and outreach	Yes	The Township and its various division, offices, and departments, utilize social media (Facebook, Twitter) to share information with constituents. This information may include hazard mitigation education and outreach.
Citizen boards or commissions that address issues related to hazard mitigation	Yes	Environmental Commission
Warning systems for hazard events	Yes	The Township utilizes CivicReady, Nixle, and Nextdoor to send warnings, advisories, alerts, and notifications to its residents.
Natural disaster/safety programs in place for schools	Yes	Fire drills
Does the jurisdiction have any public outreach mechanisms / programs in place to inform	Yes	The Township and its various division, offices, and departments, utilize social media (Facebook, Twitter) and the Township website to share information with



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

Community Classifications

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

Table 9.39-7. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
Storm Ready Certification	No	-	-
Firewise Communities classification	No	-	-
New Jersey Sustainable Jersey Community	Yes	None	March 10, 2009
Other	No	-	-

Note:

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

Adaptive Capacity

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

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

Table 9.39-8. Adaptive Capacity

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



Extreme Temperatures	Strong
Flood	Moderate
Severe Weather	Moderate
Severe Winter Weather	Strong
Wildfire	Moderate

9.39.4 National Flood Insurance Program (NFIP) Compliance

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

NFIP Floodplain Administrator (FPA)

Name, Title

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Township of Willingboro.

Table 9.39-9. NFIP Summary

Active Policies	Total Premium + Policy Fee	Number of Losses	Total Net Payment	Repetitive Loss Properties
133	\$93,443	34	\$721,475.65	2

Source: NFIP 2023

Notes: Data current as of October 2023

RL Repetitive Loss

SRL Severe Repetitive Loss

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

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

Flood Vulnerability Summary

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

Table 9.39-10. NFIP Summary

NFIP Topic	Comments
Flood Vulnerability Summary	
Describe areas prone to flooding in your jurisdiction. <ul style="list-style-type: none"> Do you maintain a list of properties that have been damaged by flooding? 	Birskhire Lane, Van Sciver (at baseball fields), Garfield Drive (debris clogs), Babbit Lane (beavers), Millstone Lane (drainage and erosion), Rittenhouse HOA (drainage and erosion), Sixteen (16) ditches that traverse several culverts and extend for approximately 2 miles. No list of properties is maintained.
Do you maintain a list of property owners interested in flood mitigation?	No



NFIP Topic	Comments
<ul style="list-style-type: none"> How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)? 	
Are any RiskMAP projects currently underway in your jurisdiction? <ul style="list-style-type: none"> If so, state what projects are underway. 	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? 	The construction code official's office is responsible for enforcing flood damage prevention and building code compliance. None
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? <ul style="list-style-type: none"> If there are mitigated properties, how were the projects funded? 	None
Do your flood hazard maps adequately address the flood risk within your jurisdiction? <ul style="list-style-type: none"> If not, state why. 	No. The maps do not account for DEP-required system issues (like Inlet/Catch Basin head and grate size restrictions) that cause flooding by clogging inlets and DEP regulations that require extensive permitting to properly maintain natural drainage channels.
NFIP Compliance	
What local department is responsible for floodplain management?	Construction
Are any certified floodplain managers on staff in your jurisdiction?	The Township Engineer's office, Pennoni Associates, Inc., employs several CFMs.
Do you have access to resources to determine possible future flooding conditions from climate change?	Yes.
Does your floodplain management staff need any assistance or training to support its floodplain management program? <ul style="list-style-type: none"> If so, what type of assistance/training is needed? 	Yes, any available
Provide an explanation of NFIP administration services you provide (e.g. permit review, GIS, education/outreach, inspections, engineering capability)	Permit review, inspections
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	By reviewing for compliance with the flood damage prevention and building codes.
What are the barriers to running an effective NFIP program in the community, if any?	Staffing, funding, training
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? <ul style="list-style-type: none"> If so, state the violations. 	No.
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	September 14, 1993, was most recent CAV.
What is the local law number or municipal code of your flood damage prevention ordinance? <ul style="list-style-type: none"> Have you adopted NJDEP's Model Code Coordinated Ordinance? What is the date that your flood damage prevention ordinance was last amended? 	Chapter 175, Flood Damage Prevention No Last amended 11-21-2017.



NFIP Topic	Comments
Does your floodplain management program meet or exceed minimum requirements? • If exceeds, in what ways?	Meets minimum requirements
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	Planning board or zoning board consider efforts to reduce flood risk. The Township Planning Board conducts Site Plan reviews.
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	Not at this time.

9.39.5 Growth/Development Trends

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

Table 9.39-11. Number of Building Permits for New Construction

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

SFHA Special Flood Hazard Area (1% annual chance flood event)
* Only location-specific hazard zones or vulnerabilities identified.

Table 9.39-12. Recent and Expected Future Development

Property or Development Name	Type (e.g., Res., Comm.)	# of Units / Structures	Address and Parcel ID	Known Hazard Zone(s)	Description/Status of Development
Recent Major Development from 2019 to Present					
Known or Anticipated Major Development in the Next Five (5) Years					



9.39.6 Jurisdictional Risk Assessment

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

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

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Figure 9.39-1. Township of Willingboro Flood and Sea Level Rise Hazard Area Extent and Location Map

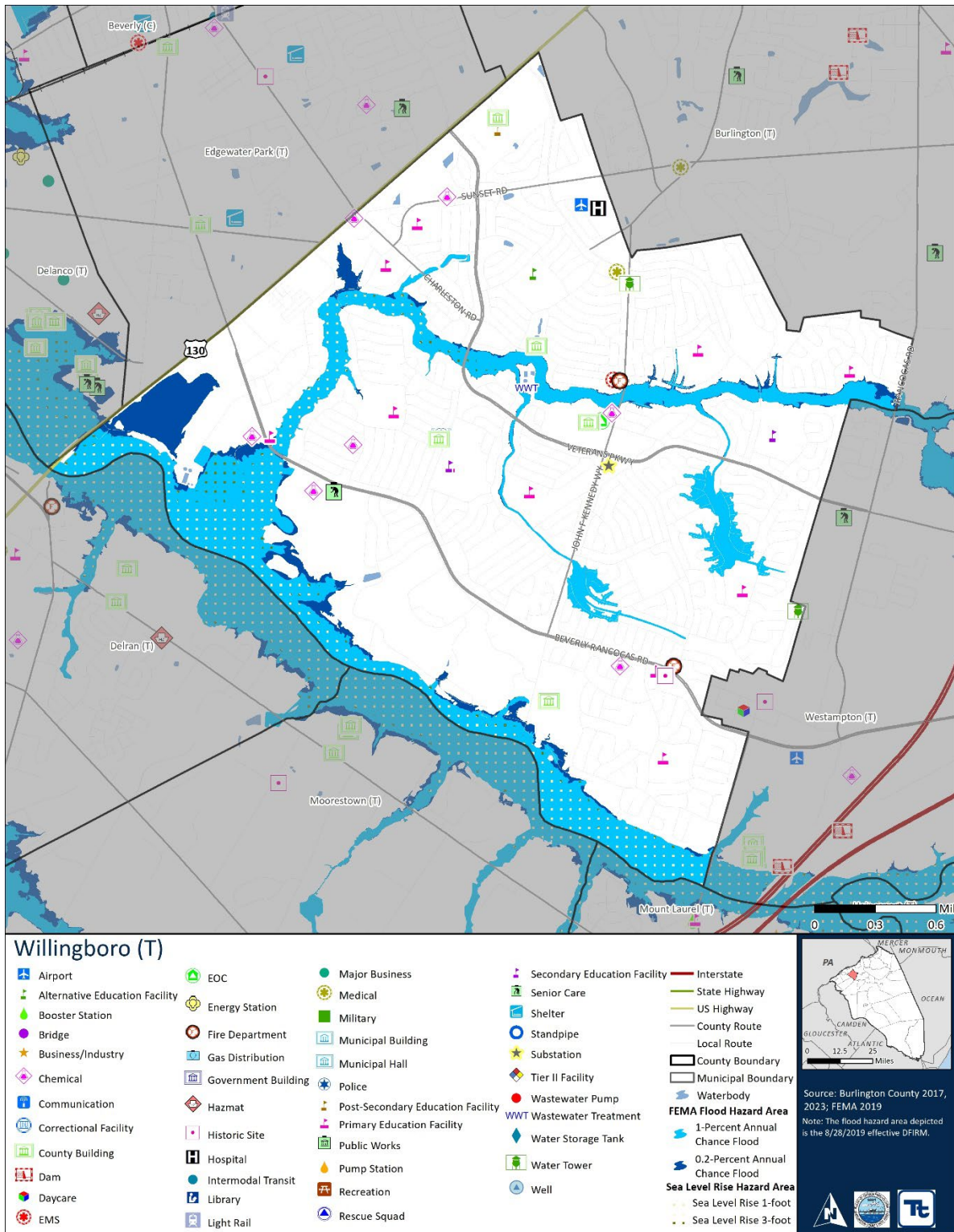
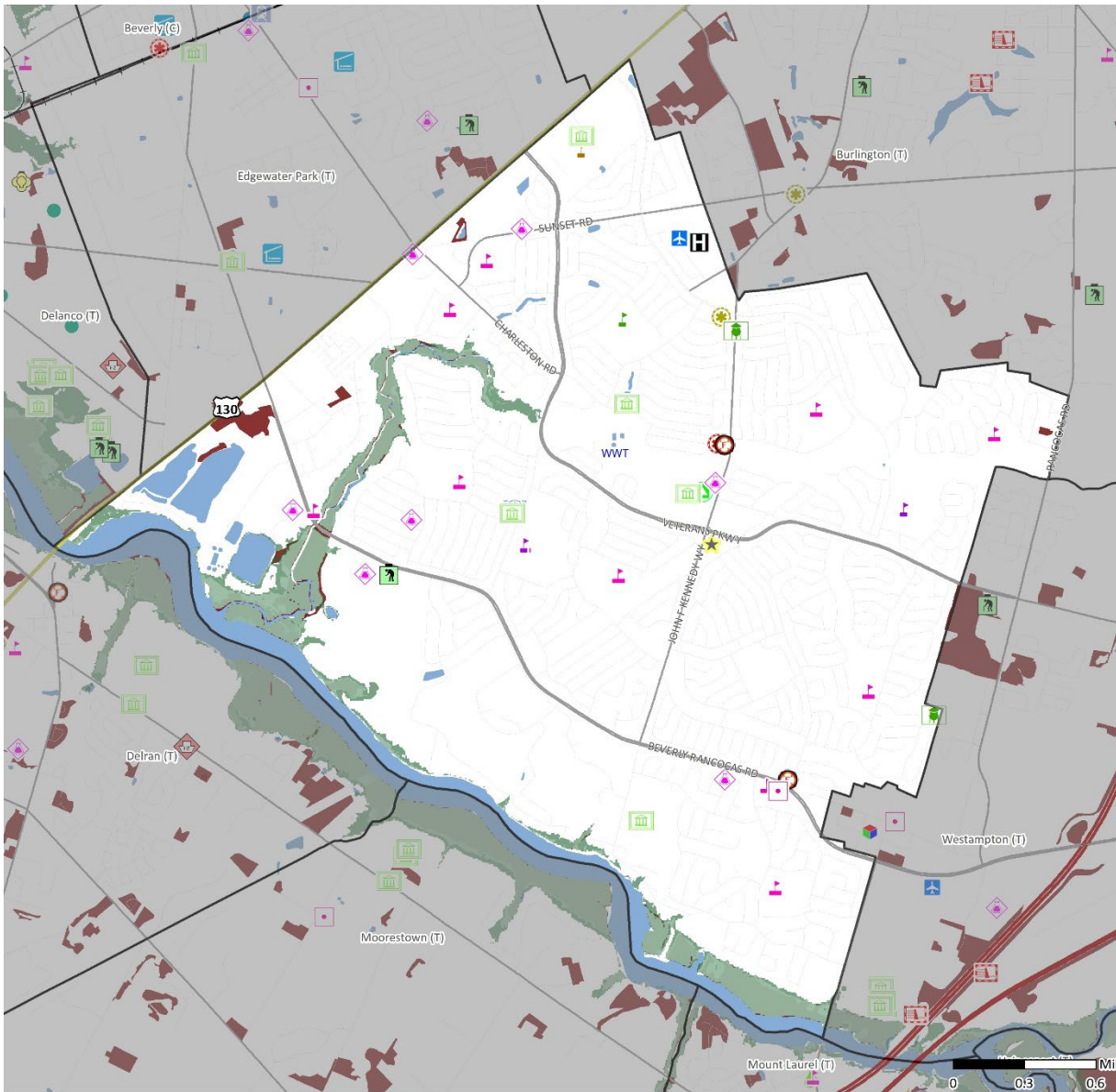


Figure 9.39-2. Township of Willingboro SLOSH and Wildfire Hazard Area Extent and Location Map



Willingboro (T)

- | | | | | |
|--------------------------------|---------------------|-----------------------------------|------------------------------|--|
| Airport | EOC | Major Business | Secondary Education Facility | Interstate |
| Alternative Education Facility | Energy Station | Medical | Senior Care | State Highway |
| Booster Station | Fire Department | Military | Shelter | US Highway |
| Bridge | Gas Distribution | Municipal Building | Standpipe | County Route |
| Business/Industry | Government Building | Municipal Hall | Substation | Local Route |
| Chemical | Police | Post-Secondary Education Facility | Tier II Facility | County Boundary |
| Communication | Hazmat | Primary Education Facility | Wastewater Pump | Municipal Boundary |
| Correctional Facility | Historic Site | Public Works | WWT Wastewater Treatment | Waterbody |
| County Building | Hospital | Pump Station | Water Storage Tank | SLOSH Category 1 |
| Dam | Intermodal Transit | Recreation | Water Tower | SLOSH Category 2 |
| Daycare | Library | Rescue Squad | Well | SLOSH Category 3 |
| EMS | Light Rail | | | Wildfire Extreme, Very High and High Fuel Risk |

Source: Burlington County 2017, 2023; NOAA 2022; NJFFS 2012



Hazard Event History

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

The Township of Willingboro’s history of federally declared (as presented by FEMA) and significant hazard events [as presented in NOAA-National Centers for Environmental Information (NCEI)] is consistent with that of the County. The table below provides details regarding municipal-specific loss and damages the Township of Willingboro 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 9.39-13. Hazard Event History Since 2019

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
March 6-7, 2018	Severe Winter Storm (DR-4368)	Yes	Banding and thundersnow produced pockets of heavier snow in the western sections of the area, closer to the Delaware River. The snow contained large amounts of liquid, making it heavy and wet. This resulted in downed trees, limbs, and wires, leading to numerous power outages across portions of New Jersey.	
April 26, 2019	Thunderstorm Wind	No	Severe storms caused widespread wind damage. Tree and powerline damage was observed in Maple Shade, Willingboro, and Mansfield.	
July 17, 2019	Thunderstorm Wind	No	The remnants of Hurricane Barry moved into Burlington County, producing severe weather. Trees and tree limbs were reported down in Willingboro and Springfield.	
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	Burlington County accounted for 115,985 positive cases of COVID-19 in the State of New Jersey, and 1,265 of the reported deaths. A total of 991,269 vaccinations were delivered in the County to both residents and non-residents.	



Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
June 3-4, 2020	Thunderstorm Wind	No	A derecho developed then moved rapidly. The storm produced damaging winds more than 60 miles per hour. A wind gust of 64 miles per hour was recorded in Delanco and Willingboro. Numerous trees were downed in Willingboro, Beverly, Delran, Riverside, Westampton, Burlington City, and Moorestown.	
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	Tropical Storm Isaias brought high winds and heavy rain to Burlington County; some areas of the County reported more than 6 inches over several hours. Burlington County Central Communications fielded over 400 emergency calls and 1,400 non-emergency calls, many for flooded basements and residences.	
May 26, 2021	Thunderstorm Wind	No	A widespread severe weather event resulted in damaging winds. Multiple trees and powerlines were downed in Mount Holly, Hainesport, Medford, Willingboro, Palmyra, and Riverton.	
July 12, 2021	Thunderstorm Wind	No	Scattered to widespread thunderstorms developed; some of the storms became severe. Trees and wires downed were reported in Moorestown, Maple Shade, Springfield, Willingboro, Florence, Beverly, Fieldsboro, Mansfield, Palmyra, and Riverton.	
August 26, 2021	Thunderstorm Wind	No	Storms produced locally damaging winds. Tree limbs and wires were downed on Moravian Ave and Pancoast Blvd in Delran Twp, and near Beverly Rancocas Rd in Willingboro Twp.	



Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall, flash floods, and a tornado (EF-1) that moved through Edgewater Park, Beverly, Burlington Township and Burlington City. Rainfall totals exceed 3 inches in parts of County; 4 water rescues occurred due to flash flooding.	
February 18, 2022	Thunderstorm Wind	No	Locally damaging wind gusts occurred; isolated thunderstorms later developed. This system produced several instances of damaging wind near the I-95 corridor. There was a power outage in Willingboro due to fallen tree limb.	

Source: FEMA 2023, NOAA NCEI 2023

Notes:

DR Major Disaster Declaration (FEMA)

EM Emergency Declaration (FEMA)

FEMA Federal Emergency Management Agency

N/A Not applicable

Hazard Ranking and Vulnerabilities

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

Hazard Ranking

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

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



Willingboro. The Township of Willingboro reviewed the County hazard risk/vulnerability risk ranking table and individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Township of Willingboro indicated the following hazard rankings were appropriate.

Table 9.39-14. Hazard Ranking Input

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

Critical Facilities

The Township does not have any critical facilities or lifelines in the community located in the 1-percent or 0.2-percent floodplain.

Identified Issues

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

- The Township has not adopted NJDEP’s Code Coordinated Ordinance.
- The municipality does not have a disaster debris management plan in place.
- The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations.
- The Township has numerous buildings that do not have redundant backup power and cannot perform continuity of operations during power outages. These buildings include the John F. Kennedy Center, the Police Department/Municipal Complex, and the Public Works Garage.
- There is significant flooding from Mill Creek and its tributaries at Berkshire Lane, Van Sciver, Garfield Drive, Babbit Lane, Millstone Lane, Rittenhouse HOA, and along 2 miles of drainage ditches that impacts emergency responders. The storm sewer system in the Township contributes to the flooding issues.
- The storm sewer system in the Township contributes to the flooding issues.
- Residents and businesses in the Township, may not be aware of how to safely prepare for or mitigate the various hazards which may impact them in the Township.
- Repetitively flooded properties place an undue stress on the property owner and Township and efforts should be made to mitigate them.



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

9.39.7 Mitigation Strategy and Prioritization

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

Past Mitigation Initiative Status

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

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Table 9.39-15. Status of Previous Mitigation Actions

Project #	Project	Responsible Party	What is the status? (e.g., In Progress, No Progress, Ongoing Capability, or Completed) If in progress or completed, please describe the funding source, cost and who is implementing.	If you did not complete the action, should the action be included in the 2024 HMP (i.e., there is still a need, this is still a priority)?		
				Yes/No	If Yes, please describe the original problem (i.e., hazard, location, historic losses)	If Yes, identify the responsible department/person to implement the project.
Twp. Willingboro-1 (former WB-1)	Obtain an Emergency Notification System for residents, allowing notifications and township information to be delivered to residents in manner in which they wish to receive it. Cell phone, email, phone call, text, etc.	Managers Office	Discontinue The County operates an alert system residents can utilize.	No	-	-
Twp. Willingboro-2 (former WB-2)	Conduct training for NFIP Coordinator in 2018.	Inspections, Code Enforcement	Ongoing Training for NFIP Coordinator(s)/FPA is continuous based on training availability.	No	-	-
Twp. Willingboro-3 (former WB-3)	Obtain Back Up Power for DPW / Alternate OEM Office. Look for sources of funding for critical facilities.	OEM/DPW	No Progress	Yes	Critical facilities in the Township are without back-up power, which impacts their ability to operate in the event of an emergency.	OEM/DPW
Twp. Willingboro-4 (former WB-4)	Work with OEM to facilitate a plan to obtain MS4 System Municipal Separate Storm Sewer System to assist with debris management	DPW	In Progress Debris Management and drainage system clogging continues to be an issue.	Yes	The storm sewer system in the Township contributes to the flooding issues.	DPW
Twp. Willingboro-5 (former WB-7)	Conduct and facilitate community and public education and outreach for residents and businesses to promote natural hazard risk reduction to include: <ul style="list-style-type: none">Disaster preparedness	Municipality with support from Planning Partners, County Planning, NJOEM, FEMA	In Progress	Yes	Residents and businesses in the Township, may not be aware of how to safely prepare for or mitigate	Municipality with support from Planning Partners, County Planning, NJOEM, FEMA



Project #	Project	Responsible Party	What is the status? (e.g., In Progress, No Progress, Ongoing Capability, or Completed) If in progress or completed, please describe the funding source, cost and who is implementing.	If you did not complete the action, should the action be included in the 2024 HMP (i.e., there is still a need, this is still a priority)?		
				Yes/No	If Yes, please describe the original problem (i.e., hazard, location, historic losses)	If Yes, identify the responsible department/person to implement the project.
	<ul style="list-style-type: none"> Hazard mitigation 				the various hazards which may impact them in the Township.	
Twp. Willingboro-6 (former WB-9)	Obtain and install backup power sources at critical facilities. Look for funding opportunities through grants.	Municipality with support from County, NJOEM and FEMA	Discontinue Combine with other power projects	No	-	-
Twp. Willingboro-7 (former WB-12)	Train new officials in flood plain management.	Municipality with support from County, NJOEM and FEMA	Ongoing Training for NFIP Coordinator(s)/FPA is continuous based on training availability.	No	-	-
Twp. Willingboro-8 (former WB-13)	Enhance resilience to severe storms by joining the NOAA "Storm Ready" program and incorporate into planning.	Municipality with support from County, NJOEM and FEMA	Discontinue The Township is not interested in receiving this credential	No	-	-
Twp. Willingboro-9 (former WB-14)	Provide public education and outreach on proper installation and/or use of backup power	Municipal Clerk	Ongoing Public outreach and education is a continuous job.	No	-	-
Twp. Willingboro-10	Continue to regulate, through land use, zoning, and other restrictions, all uses and development in areas subject to potential flooding and require new development to comply with the State and FEMA standards.	Municipality with support from Planning, Code Enforcement	Ongoing Enforcement is continuous.	No	-	-



Project #	Project	Responsible Party	What is the status? (e.g., In Progress, No Progress, Ongoing Capability, or Completed) If in progress or completed, please describe the funding source, cost and who is implementing.	If you did not complete the action, should the action be included in the 2024 HMP (i.e., there is still a need, this is still a priority)?		
				Yes/No	If Yes, please describe the original problem (i.e., hazard, location, historic losses)	If Yes, identify the responsible department/person to implement the project.
Twp. Willingboro-11	The Township will continue to promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as Repetitive Loss (RL) and Severe Repetitive Loss (SRL), such as acquisition/relocation or elevation depending on feasibility. The parameters for this initiative would be funding, benefits versus cost, and willing participation of property owners.	Municipality, Planning, Engineering	In Progress	Yes	Repetitively flooded properties place an undue stress on the property owner and Township and efforts should be made to mitigate them.	Municipality, Planning, Engineering





Additional Mitigation Efforts

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

- XXXX

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

- XXXX

Proposed Hazard Mitigation Initiatives for the HMP Update

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

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

Table 9.39-16. Analysis of Mitigation Actions by Hazard and Category

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

Note: Mitigation categories are described below the Mitigation Initiatives.



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

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Action 2024-Willingboro-01. Code Coordinated Ordinance

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



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

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Action 2024-Willingboro-02. Disaster Debris Management Plan

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



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

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Action 2024-Willingboro-03. Substantial Damage Management Plan

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



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

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Action 2024-Willingboro-04. Backup Power

Lead Agency:	Township of Willingboro	
Supporting Agencies:	Building Owners/Managers; NJOEM; FEMA	
Hazard(s) of Concern:	Dam Failure, Disease Outbreak, Drought, Earthquake, Extreme Temperature, Flood, Severe Weather, Severe Winter Weather, Wildfire	
Description of the Problem:	<p>The Township has numerous buildings that do not have redundant backup power and cannot perform continuity of operations during power outages. These buildings include:</p> <ul style="list-style-type: none"> • John F. Kennedy Center • Police Department/Municipal Complex • Public Works Garage 	
Description of the Solution:	<p>The Township will conduct generator studies to determine the correct sized generator that is needed at each facility. Once this is determined, the Township will acquire funding to purchase and install the generators. The Township will also conduct routine maintenance on these generators.</p>	
Estimated Cost:	\$100,000/generator	
Potential Funding Sources:	HMGP, BRIC, Township Budget	
Implementation Timeline:	Within 5 years	
Goals Met:	1, 2,	
Benefits:	The Township will be able to perform continuity of operations during power outages.	
Impact on Socially Vulnerable Populations:	The John F. Kennedy Center operates as an OEM office and shelter and can operate during power outages.	
Impact on Future Development:	N/A	
Impact on Critical Facilities/Lifelines:	Critical facilities will be able to operate during power outages.	
Impact on Capabilities:	This action allows for continuity of operations for critical facilities which allows the Township to improve their capabilities during a power outage.	
Climate Change Considerations:	Climate change is leading to an increase in severity and frequency of storm events.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Emergency Services	
Priority	High	
Alternatives	Action	Evaluation
	No Action	Current problem continues
	Solar Panels	Weather dependent and costly



	Mobile Generator	May lack sufficient power supply or run time
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Action 2024-Willingboro-05. Mill Creek Flooding

Lead Agency:	Public Works	
Supporting Agencies:	NJOEM, Burlington Township	
Hazard(s) of Concern:	Flood	
Description of the Problem:	There is significant flooding from Mill Creek and its tributaries at Berkshire Lane, Van Sciver, Garfield Drive, Babbit Lane, Millstone Lane, Rittenhouse HOA, and along 2 miles of drainage ditches that impacts emergency responders.	
Description of the Solution:	The Township will conduct studies to determine the root of flooding along these roads and will acquire funding to implement the most cost-effective solutions to reduce flooding in each area and will ensure routine maintenance is conducted.	
Estimated Cost:	TBD	
Potential Funding Sources:	HMGP, FMA, BRIC, Township Budget	
Implementation Timeline:	Within 5 years	
Goals Met:	2	
Benefits:	The Township will experience reduced flooding.	
Impact on Socially Vulnerable Populations:	This action may allow for the identification of potential resources to address flooding to roads that provide access to and from socially vulnerable populations.	
Impact on Future Development:	This action may allow for increased development in areas that depend on these flood prone roads.	
Impact on Critical Facilities/Lifelines:	This action will allow for access along these flood prone roads which may be used to access critical facilities and lifelines.	
Impact on Capabilities:	This action strengthens the Township's capability to handle flood.	
Climate Change Considerations:	Climate change is leading to an increase in severity and frequency of storm events that produce an increase in precipitation.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Structural Flood Control Projects	
Priority	Medium	
Alternatives	Action	Evaluation
	No action	Current problem remains
	Raise banks of creek to increase storage capacity	Cost prohibitive
	Construct floodwall along creek	Cost prohibitive



Action 2024-Willingboro-06. Stormwater Infrastructure

Lead Agency:	Township Public Works	
Supporting Agencies:	Township OEM, NJDEP	
Hazard(s) of Concern:	Flood	
Description of the Problem:	The storm sewer system in the Township contributes to the flooding issues.	
Description of the Solution:	Work with OEM to facilitate a plan to obtain MS4 System Municipal Separate Storm Sewer System to assist with debris management.	
Estimated Cost:	Medium	
Potential Funding Sources:	Municipal Budget	
Implementation Timeline:	Within 5 years	
Goals Met:	2, 5, 6	
Benefits:	This action will allow the Township to have its separate storm sewer system and benefit the Township's stormwater management capabilities.	
Impact on Socially Vulnerable Populations:	N/A	
Impact on Future Development:	N/A	
Impact on Critical Facilities/Lifelines:	N/A	
Impact on Capabilities:	This action will strengthen stormwater management capabilities in the Township.	
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events.	
Mitigation Category	Local Plans and Regulations	
CRS Category	Preventative Measures	
Priority	Medium	
Alternatives	Action	Evaluation
	No Action	Current problem continues.
	Perform debris maintenance	Debris may still return
	Increase pipes	Legalities



Action 2024-Willingboro-07. Public Education and Outreach

Lead Agency:	Township Administration
Supporting Agencies:	OEM
Hazard(s) of Concern:	Dam Failure, Disease Outbreak, Drought, Earthquake, Extreme Temperature, Flood, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	Residents and businesses in the Township, may not be aware of how to safely prepare for or mitigate the various hazards which may impact them in the Township.
Description of the Solution:	Conduct and facilitate community and public education and outreach for residents and businesses to promote natural hazard risk reduction to include disaster preparedness and hazard mitigation. Methods of distribution may include Township events, the Township newsletter, social media, the Township website, and having the materials on display for the public at Township libraries and offices.
Estimated Cost:	Low
Potential Funding Sources:	Municipal Budget
Implementation Timeline:	1 year
Goals Met:	1, 2, 3, 5, 7
Benefits:	This action will improve the current public education and outreach program in the Township by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the Township.
Impact on Socially Vulnerable Populations:	Socially vulnerable populations will learn how to prepare for and mitigate the various hazards which may impact them in the Township.
Impact on Future Development:	N/A
Impact on Critical Facilities/Lifelines:	Businesses, which may be considered critical facilities or lifelines, would be more informed on how to prepare for emergency events and mitigate the risks of potential hazards. With these businesses becoming more resilient, this action would contribute to their continuity of operations.
Impact on Capabilities:	This action would build upon the Township's already existing public education and outreach program.
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.
Mitigation Category	Education and Awareness Programs
CRS Category	Public Information
Priority	High



Alternatives	Action	Evaluation
	No action	Current methods remain the only ones used
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Township
	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance

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Action 2024-Willingboro-08. Repetitive and Severe Repetitive Loss Properties

Lead Agency:	Township Administration	
Supporting Agencies:	County, NJOEM	
Hazard(s) of Concern:	Flood	
Description of the Problem:	Repetitively flooded properties place an undue stress on the property owner and Township and efforts should be made to mitigate them.	
Description of the Solution:	The Township will continue to promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as Repetitive Loss (RL) and Severe Repetitive Loss (SRL), such as acquisition/relocation or elevation depending on feasibility. The parameters for this initiative would be funding, benefits versus cost, and willing participation of property owners.	
Estimated Cost:	Medium	
Potential Funding Sources:	FEMA FMA, FMA SWIFT, NJDEP Green Acres, NJDEP Blue Acres, Municipal Budget	
Implementation Timeline:	3 years	
Goals Met:	2, 3, 5, 7	
Benefits:	This action would foster comprehensive floodplain management by removing at risk properties from the flood hazard area or elevating properties to reduce the flood risk.	
Impact on Socially Vulnerable Populations:	Socially vulnerable populations may be able to have houses elevated or acquired when it would otherwise be unaffordable.	
Impact on Future Development:	N/A	
Impact on Critical Facilities/Lifelines:	N/A	
Impact on Capabilities:	Instituting this program would be a new capability for the Township.	
Climate Change Considerations:	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Sea level rise associated with climate change may cause water levels in the tidal Delaware River to increase.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Structural Flood Control Projects	
Priority	High	
Alternatives	Action	Evaluation
	No action	Current problem continues



	Construct flood walls/barriers around vulnerable areas	Costly and can divert floodwaters to other areas
	Deployable flood barriers for vulnerable areas	Requires a great deal of work to implement prior to each event

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

Table 9.39-17. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Community Objectives	Total	High / Medium / Low
		2024-Willingboro-01	Code Coordinated Ordinance	1	1	1	1	1	1	1	1	1	0	1	1	0	0
2024-Willingboro-02	Disaster Debris Management Plan	0	1	1	1	1	1	1	0	1	1	1	1	0	1	11	High
2024-Willingboro-03	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	0	11	High
2024-Willingboro-04	Backup Power	1	1	1	1	1	0	0	1	1	1	0	1	1	1	11	High
2024-Willingboro-05	Mill Creek Flooding	0	1	1	1	1	0	1	0	1	0	1	1	0	1	9	Medium
2024-Willingboro-06	Stormwater Infrastructure	0	1	1	1	1	1	1	0	1	0	1	1	0	1	10	Medium
2024-Willingboro-07	Public Education and Outreach	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2024-Willingboro-08	Repetitive and Severe Repetitive Loss Properties	1	1	1	1	1	0	1	1	1	1	1	1	0	1	12	High

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