



## SECTION 9. JURISDICTIONAL ANNEXES

### 9.5 TOWNSHIP OF BORDENTOWN

This section presents the jurisdictional annex for the Township of Bordentown 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 Bordentown participated in the planning process, an assessment of the Township of Bordentown’s risk and vulnerability, the different capabilities used in the Township of Bordentown, and an action plan that will be implemented to achieve a more resilient community.

#### 9.5.1 Hazard Mitigation Planning Team

The Township of Bordentown 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 Bordentown departments, including Emergency Management, Administration, and Community Development. The OEM Coordinator 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 9.5-1. Hazard Mitigation Planning Team

Primary Point of Contact		Alternate Point of Contact	
Name/Title:	Salvatore Guido OEM Coordinator	Name/Title:	Michael Theokas, Administrator
Address:	1 Municipal Drive, Bordentown, NJ 08505	Address:	1 Municipal Drive, Bordentown, NJ 08505
Phone Number:	(609) 291.2133 ext. 2407	Phone Number:	(609) 298.2800 ext. 2102
Email:	SGuido@bordentowntownshipd.com	Email:	m.theokas@bordentowntwp.org
<b>NFIP Floodplain Administrator</b>			
Name/Title:	Mark Siegle, PP, AICP, CNU-A, Director of Community Development and Code Enforcement Officer		
Address:	1 Municipal Drive, Bordentown, NJ 08505		
Phone Number:	(609) 298-2800 ext. 2112		
Email:	m.siegle@bordentowntwp.org		
<b>Additional Contributors:</b>			
Name/Title:	Michael Theokas, Administrator		
Method of Participation:			



Completed the stakeholder survey, Worksheets A-D, Risk Assessment and Mitigation Development Worksheets

## 9.5.2 Municipal Profile

The Township of Bordentown is located in the northernmost portion of Burlington County. It is bordered to the north and northwest by the Delaware River and surrounds most of the City of Bordentown in the southwest portion of the Township. Additionally, the Township is bordered to the east and southeast by Chesterfield, to the south by Mansfield, and to the southwest by Fieldsboro. Unincorporated communities in the Township include Bossert Estates, Dunns Mill, and Newbold Island. The Township has a total area of 9.334 square miles, including 8.515 square miles of land and 0.819 square miles of water.

The Township of Bordentown is governed by a Township Committee consisting of five members. The elections are partisan, and members serve in three-year, staggered terms. This Township Committee, in turn, elects a mayor to serve for a one-year term. The Township Committee serves as the Legislative branch of government and establishes policies for the administration of various departments. The Committee appoints the Township Administrator who is responsible for carrying out those policies and overseeing day-to-day operations.

According to the U.S. Census, the 2020 population for Township of Bordentown was 11,791, a 3.7 percent increase from the 2010 Census. Data from the 2021 American Community Survey 5-Year Population Estimates indicate that 13.6 percent is 65 years of age or older 4 percent of the population is 5 years of age or younger, 2.4 percent is non-English speaking, 9.4 percent has a disability, and 1.6 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.

## 9.5.3 Jurisdictional Capability Assessment and Integration

The Township of Bordentown 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 Bordentown 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 Bordentown. The comment field provides information as to how the capability integrates hazard mitigation and risk reduction.

Table 9.5-2. 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
<b>Codes, Ordinances, &amp; Regulations</b>				
<b>Building Code</b>	Yes	Chapter 240 Construction Codes, Minimum	State and Local	Construction Official and Code Enforcement Officer
<i>How does this reduce risk?</i> This chapter and the Building Code shall be enforced and administered by the Construction Official as appointed by the Township. This code ensures all buildings are in line with the Uniform Construction Code, as adopted by the Township and the State of New Jersey. The Construction Office performs all duties and responsibilities as required by the Uniform Construction Code, including issuing permits, and scheduling and performing inspections.				
<b>Zoning/Land Use Code</b>	Yes	Chapter 500 Land Development	Local	Planning Board
<i>How does this reduce risk?</i> The code enables where appropriate, flexibility of design and development of land in such a manner as to preserve its natural and scenic qualities, protect areas of meaningful ecological value, reduce flood hazards, facilitate the adequate and economical provision of streets and utilities, minimize negative environmental impacts, improve the aesthetic quality of new residential developments, encourage the conservation of energy, increase recreational opportunities, and otherwise promote the planned and environmentally desirable use of land.				
<b>Subdivision Ordinance</b>	Yes	Chapter 500 Land Development	Local	Planning Board
<i>How does this reduce risk?</i> It is declared to be the policy of the Township to consider land subdivisions as part of a plan for the orderly, efficient, and economical development of the Township. Land to be subdivided shall be of such character that it can be used safely for building or development purposes without danger to health or peril from fire, flood, or other menace, and without resulting in significant damage to the ecology of the area in which it is located. Land subject to fire, flood or other hazards shall not be subdivided nor developed for residential purposes, nor for such other uses as may increase danger to health, life, or property, or aggravate a flood hazard, but such land may be set aside for uses as shall not involve such danger nor produce unsatisfactory living conditions.				
<b>Site Plan Ordinance</b>	Yes	Chapter 500 Land Development	Local	Planning Board
<i>How does this reduce risk?</i> Approval of a site plan by the Joint Land Use Board is required for a) the development or redevelopment of any building, structure or lot or portion thereof for a new use; b) the expansion or relocation of any existing use; or c) any change of use of a building, structure or lot or portion thereof. The Planning Board sets forth appropriate conditions and safeguards which are in harmony with several identified purposes, including drainage. Per the ordinance, a proposed stormwater drainage system shall be adequate to prevent any increase in the rate of surface runoff or otherwise contribute to downstream flooding during a storm of any magnitude, up to and including a one-hundred-year frequency storm.				



	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
<b>Stormwater Management Ordinance</b>	Yes	Chapter 410 Stormwater Control	Local	Public Works
<p><i>How does this reduce risk?</i></p> <p>The purpose of this article is to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing within this jurisdiction. An identified objective of this ordinance is to minimize increases in the volumes and rates of stormwater runoff from land development activities in order to reduce flooding and streambank erosion.</p>				
<b>Post-Disaster Recovery/ Reconstruction Ordinance</b>	No	-	-	-
<p><i>How does this reduce risk?</i></p>				
<b>Real Estate Disclosure</b>	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property
<p><i>How does this reduce risk?</i></p> <p>For leases, the law amends the New Jersey Truth-in-Renting Act, N.J.S.A. 46:8-43 et seq., to require every landlord to notify in writing each of the landlord's tenants, prior to lease signing or renewal, whether the property is located in the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area ("100-year floodplain") or Moderate Risk Flood Hazard Area ("500-year floodplain") and if the landlord has actual knowledge that the rental premises or any portion of the parking areas of the real property containing the rental premises has been subjected to flooding. The law does not apply to (1) landlords who lease commercial space or residential dwellings for less than one month, (2) residential dwellings in a premises containing not more than two units, (3) owner-occupied premises containing not more than three units, or (4) hotels, motels, or other guest houses serving transient or seasonal guests for a period of less than 120 days.</p> <p>The model notice is to contain the heading "Flood Risk" and questions for the landlord to answer regarding the landlord's actual knowledge of past flooding of the property. The questions regarding the property being in a FEMA Special or Moderate Risk Flood Hazard Area shall not contain the option for "unknown." To determine how the questions are to be answered, FEMA's current flood insurance rate maps for the leased premises area must be consulted. The landlord will be required to answer whether the rental premises or any portions of the parking areas of the real property containing the rental premises ever experienced any flood damage, water seepage, or pooled water due to a natural flood event and, if so, the number of times that has occurred.</p> <p>The notice to residential tenants must also indicate that flood insurance may be available to renters through FEMA's National Flood Insurance Program to cover their personal property and contents in the event of a flood and that standard renter's insurance does not typically cover flood damage.</p> <p>For sales, the law also amends the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-1 et seq., to require sellers of real property to disclose, on the property condition disclosure statement, whether the property is located in the FEMA Special or Moderate Risk Flood Hazard Area and any actual knowledge of the seller concerning flood risks of the property to the purchaser before the purchaser becomes obligated under any contract for the purchase of the property.</p> <p>The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:</p> <ul style="list-style-type: none"> <li>• 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?</li> <li>• 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.</li> <li>• 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.</li> <li>• Is there flood insurance on the property? A standard homeowner's insurance policy typically does not cover flood damage.</li> </ul>				



	Jurisdiction has this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
<ul style="list-style-type: none"> <li>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.</li> <li>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?</li> <li>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?</li> </ul> <p>Not all provisions of this law have become effective at the time of the writing of this plan.</p>				
<b>Growth Management</b>	No	-	-	-
<i>How does this reduce risk?</i>				
<b>Environmental Protection Ordinance</b>	No	-	-	-
<i>How does this reduce risk?</i>				
<b>Flood Damage Prevention Ordinance</b>	Yes	Chapter 279 Flood Damage Prevention	Local	Director of Community Development
<p><i>How does this reduce risk?</i></p> <p>It is the purpose of this chapter to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:</p> <ul style="list-style-type: none"> <li>A. Protect human life and health;</li> <li>B. Minimize expenditure of public money for costly flood-control projects;</li> <li>C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;</li> <li>D. Minimize prolonged business interruptions;</li> <li>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;</li> <li>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;</li> <li>G. Ensure that potential buyers are notified that property is in an area of special flood hazard; and</li> <li>H. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.</li> </ul> <p>This version of the ordinance is not the model Code Coordinated Ordinance and will require an update.</p>				
<b>Wellhead Protection</b>	No	-	-	-
<i>How does this reduce risk?</i>				
<b>Emergency Management Ordinance</b>	Yes	Chapter 61 Emergency Management	Local	OEM
<p><i>How does this reduce risk?</i></p> <p>Identifies the role and responsibilities of the Emergency Management Coordinator, Community Emergency Response Team (CERT), Local Emergency Planning Committee (LEPC), and the need for the Emergency Operations Plan (EOP).</p>				
<b>Climate Change Ordinance</b>	No	-	-	-
<i>How does this reduce risk?</i>				
<b>Other</b>	No	-	-	-
<i>How does this reduce risk?</i>				
<b>Planning Documents</b>				



	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
<b>Comprehensive/Master Plan</b>	Yes	Master Plan, 2022	Local	Community Development, Planning Board
<i>How does this reduce risk?</i> The master plan is intended to provide a set of policies for the Township that will guide municipal officials, the planning and zoning boards, and citizens on decisions and regulations within the Township. The plan is a broad policy document that guides the use of lands and future physical, economic, and social development of the Township.				
<b>Capital Improvement Plan</b>	No	-	-	-
<i>How does this reduce risk?</i>				
<b>Disaster Debris Management Plan</b>	No	-	-	-
<i>How does this reduce risk?</i>				
<b>Floodplain Management or Watershed Plan</b>	No	-	-	-
<i>How does this reduce risk?</i>				
<b>Stormwater Management Plan</b>	Yes	Bordentown Township Municipal Stormwater Management Plan, October 2006	Local	Public Works
<i>How does this reduce risk?</i> The Municipal Stormwater Management Plan documents the Township's strategy for addressing stormwater management and stormwater-related impacts related to land development. This plan addresses the impacts of land development on groundwater recharge, stormwater quality, and stormwater quantity. The impacts are addressed by incorporating stormwater design and performance standards for new major development, defined as projects that disturb one or more acre of land or projects that would result in 0.25 acres or more of additional impervious coverage. These standards are intended to minimize the adverse impact of stormwater runoff on water quality and water quantity and the loss of groundwater recharge that provide base flow in receiving water bodies. The plan describes long-term operation and maintenance measures for existing and future stormwater facilities.				
<b>Stormwater Pollution Prevention Plan</b>	Yes	Stormwater Pollution Plan, August 2019	Local	Public Works
<i>How does this reduce risk?</i> The Stormwater Pollution Prevention Plan is used to identify all potential pollution sources that could come into contact with stormwater leaving a site. This plan includes the following elements: <ul style="list-style-type: none"> <li>• Site map and description</li> <li>• Descriptions of activities that could cause pollution</li> <li>• Best Management Practices &amp; control measures for preventing pollution</li> <li>• Procedures for conducting inspections and monitoring</li> <li>• Plans for keeping your SWPPP up to date</li> </ul>				
<b>Open Space Plan</b>	Yes	Draft Open Space and Recreation Plan, July 2023	Local	Community Development, Planning Board
<i>How does this reduce risk?</i> Addresses new open space acquisitions and programs for open space preservation, including farmland preservation. Acquiring land for open space can reduce the Township's vulnerability to certain hazards, such as flooding.				
<b>Urban Water Management Plan</b>	No	-	-	-
<i>How does this reduce risk?</i>				
<b>Habitat Conservation Plan</b>	No	-	-	-
<i>How does this reduce risk?</i>				



	Jurisdiction has this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
<b>Economic Development Plan</b>	Yes	Master Plan Economic Development Element, March 2022	Local	Community Development, Planning Board
<i>How does this reduce risk?</i> The Economic Development Plan is an element of the Master Plan - the primary policy document that identifies future goals for growth, preservation, and development in the Township. The Economic Development Plan emphasizes continued economic vitality for the Township and proactively focuses on supporting the local economy's ability to adapt to changing conditions. The Plan provides a framework for a coordinated effort to ease the effects of the business cycle on the residents and businesses of Bordentown.				
<b>Shoreline Management Plan</b>	No	-	-	-
<i>How does this reduce risk?</i>				
<b>Community Wildfire Protection Plan</b>	No	-	-	-
<i>How does this reduce risk?</i>				
<b>Community Forest Management Plan</b>	No	-	-	-
<i>How does this reduce risk?</i>				
<b>Transportation Plan</b>	Yes	Master Plan Circulation Element, December 2019	Local	Community Development, Planning Board
<i>How does this reduce risk?</i> The Circulation Element of the Master Plan provides a description and analysis of the transportation system that serves the Township, including the street network, streetscape, sidewalks, and pathways.				
<b>Agriculture Plan</b>	No	-	-	-
<i>How does this reduce risk?</i>				
<b>Climate Action/ Resiliency/Sustainability Plan</b>	No	-	-	-
<i>How does this reduce risk?</i>				
<b>Tourism Plan</b>	No	-	-	-
<i>How does this reduce risk?</i>				
<b>Business/ Downtown Development Plan</b>	No	-	-	-
<i>How does this reduce risk?</i>				
<b>Other</b>	Yes	Redevelopment Plans	Local	Administration
<i>How does this reduce risk?</i> The Township has five redevelopment plans to guide redevelopment of areas. Redeveloped areas will conform to modern building code requirements.				
<b>Response/Recovery Planning</b>				
<b>Emergency Operations Plan</b>	Yes	Emergency Operations Plan	Local	Administration, OEM
<i>How does this reduce risk?</i> Addresses municipal response to disaster events.				
<b>Continuity of Operations Plan</b>	No	-	-	-
<i>How does this reduce risk?</i>				



	Jurisdiction has this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
<b>Strategic Recovery Planning Report</b> <i>How does this reduce risk?</i>	No	-	-	-
<b>Threat &amp; Hazard Identification &amp; Risk Assessment (THIRA)</b> <i>How does this reduce risk?</i>	No	-	-	-
<b>Post-Disaster Recovery Plan</b> <i>How does this reduce risk?</i>	No	-	-	-
<b>Public Health Plan</b> <i>How does this reduce risk?</i>	No	-	-	-
<b>Other</b> <i>How does this reduce risk?</i>	No	-	-	-

## Development and Permitting Capability

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

Table 9.5-3. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Yes/No	Comment:
Do you issue development permits? • If yes, what department is responsible?	Yes	Construction Office
If you do not issue development permits, what is your process for tracking new development?	N/A	-
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	Floodplain
Do you have a buildable land inventory? • If yes, please describe	Yes	In the Township's Master Plan
Describe the level of build-out in your jurisdiction.	N/A	Bordentown Township has a land area of approximately 5,444.6 acres (or 91.9% of the Township) and a water area of approximately 481.8 acres (or 8.1% of the entire Township). Historically, the southern portion of the Township has been utilized by industry and farming. Development trends are showing a number of these large tracts being subdivided and clustered into residential developments. Vacant parcels occupy 21.2% of the Township's parcel area; residential is 22.9%; commercial is 12.3%, industrial has 20 parcels comprising 262.7 acres; public property represents over 26.1% of the total land area of the Township. Farmland currently represents a very





Indicate if your jurisdiction implements the following	Yes/No	Comment:
		small portion of the Township and is mostly located along the Township's southwestern border with Chesterfield Township and Mansfield Township. Other land uses in the Township include public schools, church and charitable, cemeteries and graveyards, and other exempt properties. The Township has 5 redevelopment plans.

## Administrative and Technical Capability

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

Table 9.5-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comments (available staff, responsibilities, support of hazard mitigation)
<b>Administrative Capability</b>		
Planning Board	Yes	The Planning Board consists of nine regular and four alternate members. The Planning Board has the following powers: make, adopt and, from time to time, amend a Master Plan for the physical development of the Township, including any areas outside its boundaries; administer the subdivision and site plan review provisions; hear and decide applications for conditional uses; participate in the preparation and review of programs or plans; assemble data on a continuing basis as part of a continuous planning process; prepare a program of municipal capital improvements projects projected over a term of six years; exercise, to the same extent and subject to the same restrictions, all the powers of a zoning board of adjustment.
Zoning Board of Adjustment	No	-
Planning Department	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	Yes	The Environmental Commission consists of 5 members. The Commission has the following powers and duties: advocacy of conservation and development of the natural resources; planning of, implementing of, and informing the public about, local conservation programs; compilation and maintenance of an index of all open areas of the Township publicly and privately owned, including marshlands, swamps and other wetlands; conducting of appropriate research into the possible use or uses of open areas; recommending to the Planning Board appropriate plans and programs for inclusion in the Township Master Plan for general development and use of such areas; preparation and distribution of advertisements, books, maps, charts and



Resources	Available? (Yes/No)	Comments (available staff, responsibilities, support of hazard mitigation)
		other appropriate materials necessary to the discharge of its duties.
Open Space Board/Committee	No	-
Economic Development Commission/Committee	Yes	The Economic Development Advisory Committee consists of 11 members. The Committee has the duty to advise the Township Committee regarding the following: conduct research into potential economic development of the Township; develop and recommend to the Township Committee a marketing plan; advertise, prepare, print, and distribute materials to support the economic development of the Township; keep records of the meetings and activities; make quarterly reports; perform such other duties as may be delegated and authorized.
Public Works/Highway Department	Yes	The Department of Public Works is responsible for the management, maintenance, and operation of all Township properties and 81 miles of Township roads. Public Works oversees the stormwater management initiatives.
Construction/Building/Code Enforcement Department	Yes	The Township has a Construction and Code Enforcement Office. The Construction Office performs all duties and responsibilities as required by the Uniform Construction Code, including issuing permits, and scheduling and performing inspections. The Code Enforcement Office ensures the Zoning codes are being followed throughout the Township and sorts through zoning applications. Those which need variances or other permittances are referred to the Planning Board.
Emergency Management/Public Safety Department	Yes	The Township has any OEM Coordinator and an OEM Council. The Township also has a Police Department, 2 Fire Districts, and an EMS Service.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	The Department of Public Works is responsible for the management, maintenance, and operation of all Township properties and 81 miles of Township roads. Public Works oversees the stormwater management initiatives.
Mutual aid agreements	Yes	Police/Fire/Rescue/EMS
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>	No	-
Other	No	-
<b>Technical/Staffing Capability</b>		
Planners or engineers with knowledge of land development and land management practices	Yes	Contracted engineers
Engineers or professionals trained in building or infrastructure construction practices	Yes	Contracted engineers



Resources	Available? (Yes/No)	Comments (available staff, responsibilities, support of hazard mitigation)
Planners or engineers with an understanding of natural hazards	Yes	Contracted engineers
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage assessments	Yes	The OEM, Building Inspector, and Engineer
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	No	-
Environmental scientist familiar with natural hazards	Yes	Contracted engineers, OEM
Surveyor(s)	No	-
Emergency Manager	Yes	The Township has any OEM Coordinator and an OEM Council.
Grant writer(s) <i>Consider the following - Are data and maps from the HMP used to support documentation in grant applications?</i>	Yes	The OEM and Community Development. Data and maps from the HMP are used to support documentation in grant applications.
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

## Fiscal Capability

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

Table 9.5-5. 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	No
Impact fees for homebuyers or developers of new development/homes	Yes
Stormwater utility fee	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	Yes
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

## Education and Outreach Capability

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



Table 9.5-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment:
Public information officer or communications office	Yes	Township Administrator
Personnel skilled or trained in website development	Yes	Contracted
Hazard mitigation information available on your website	Yes	This information can be found on the Emergency Management webpage. It includes guidance for creating a household emergency plan, information from the National Hurricane Center and FEMA, and how to ready businesses for emergencies. Information on how to sign up for Civic Ready and Register Ready are included.
Social media for hazard mitigation education and outreach	Yes	The Township and the Township OEM has a Facebook page.
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	Yes	Township phone app, Civic Ready
Natural disaster/safety programs in place for schools	No	-
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.	No	-

### Community Classifications

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

Table 9.5-7. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	9	2015
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	Districts 1 (5) & 2 (4)	2017
Storm Ready Certification	No	-	-
Firewise Communities classification	No	-	-
New Jersey Sustainable Jersey Community	Yes	N/A	-
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 9.5-8. 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

### 9.5.4 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)

Mark Siegle, Director of Community Development

#### National Flood Insurance Program (NFIP) Summary

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

Table 9.5-9. NFIP Summary

Active Policies	Total Premium + Policy Fee	Number of Losses	Total Net Payment	Repetitive Loss Policies
17	\$10,773	9	\$7,285.60	1

Source: NFIP 2023

Notes: Data current as of October 2023

RL Repetitive Loss

SRL Severe Repetitive Loss

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



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

## Flood Vulnerability Summary

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

Table 9.5-10. NFIP Summary

NFIP Topic	Comments
<b>Flood Vulnerability Summary</b>	
Describe areas prone to flooding in your jurisdiction. <ul style="list-style-type: none"> <li>Do you maintain a list of properties that have been damaged by flooding?</li> </ul>	Flooding is mainly confined to the Special Flood Hazard Area.  Yes
Do you maintain a list of property owners interested in flood mitigation? <ul style="list-style-type: none"> <li>How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?</li> </ul>	Yes  None
Are any RiskMAP projects currently underway in your jurisdiction? <ul style="list-style-type: none"> <li>If so, state what projects are underway.</li> </ul>	No
How do you make Substantial Damage determinations? <ul style="list-style-type: none"> <li>How many were declared for recent flood events in your jurisdiction?</li> </ul>	Township Professionals make Substantial Damage determinations.  None
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? <ul style="list-style-type: none"> <li>If there are mitigated properties, how were the projects funded?</li> </ul>	None
Do your flood hazard maps adequately address the flood risk within your jurisdiction? <ul style="list-style-type: none"> <li>If not, state why.</li> </ul>	Yes
<b>NFIP Compliance</b>	
What local department is responsible for floodplain management?	Community Development
Are any certified floodplain managers on staff in your jurisdiction?	No
Do you have access to resources to determine possible future flooding conditions from climate change?	Yes
Does your floodplain management staff need any assistance or training to support its floodplain management program? <ul style="list-style-type: none"> <li>If so, what type of assistance/training is needed?</li> </ul>	No
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?	UCC/Assessor/Community Development
What are the barriers to running an effective NFIP program in the community, if any?	Funding
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed?	No



NFIP Topic	Comments
<ul style="list-style-type: none"> <li>If so, state the violations.</li> </ul>	
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	Unknown
What is the local law number or municipal code of your flood damage prevention ordinance? <ul style="list-style-type: none"> <li>Have you adopted NJDEP’s Model Code Coordinated Ordinance?</li> <li>What is the date that your flood damage prevention ordinance was last amended?</li> </ul>	Chapter 279 No September 25, 2017
Does your floodplain management program meet or exceed minimum requirements? <ul style="list-style-type: none"> <li>If exceeds, in what ways?</li> </ul>	Yes, it meets the minimum requirements
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	Yes, Planning Board/Professionals review
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No

### 9.5.5 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 9.5-11. Number of Building Permits for New Construction

Type of Development	2018		2019		2020		2021		2022	
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
<b>Number of Building Permits for New Construction Issued Since the previous HMP* (total/within regulatory floodplain)</b>										
Single Family	0	0	0	0	0	0	0	0	0	0
Multi-Family	0	0	0	0	0	0	4	0	3	0
Other (commercial, mixed-use, etc.)	5	0	4	0	4	0	2	0	4	0
<b>Total Permits Issued</b>	<b>5</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>7</b>	<b>0</b>

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



Table 9.5-12. 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
<b>Recent Major Development from 2019 to Present</b>					
There have been no major developments between 2019 to present.					
<b>Known or Anticipated Major Development in the Next Five (5) Years</b>					
There is no known or anticipated major development in the next five years.					

### 9.5.6 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 Bordentown’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 Bordentown has significant exposure. The maps also show the location of potential new development, where available.

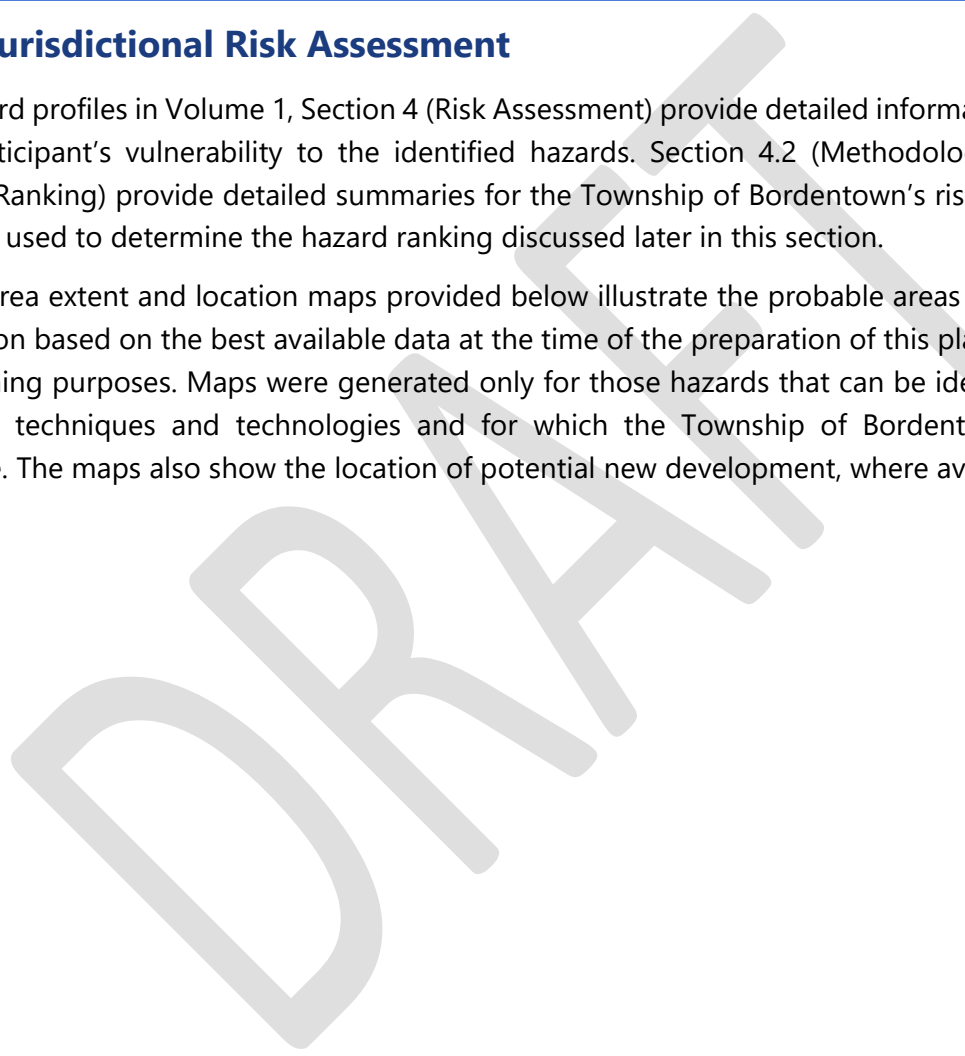




Figure 9.5-1. Township of Bordentown Flood and Sea Level Rise Hazard Area Extent and Location Map

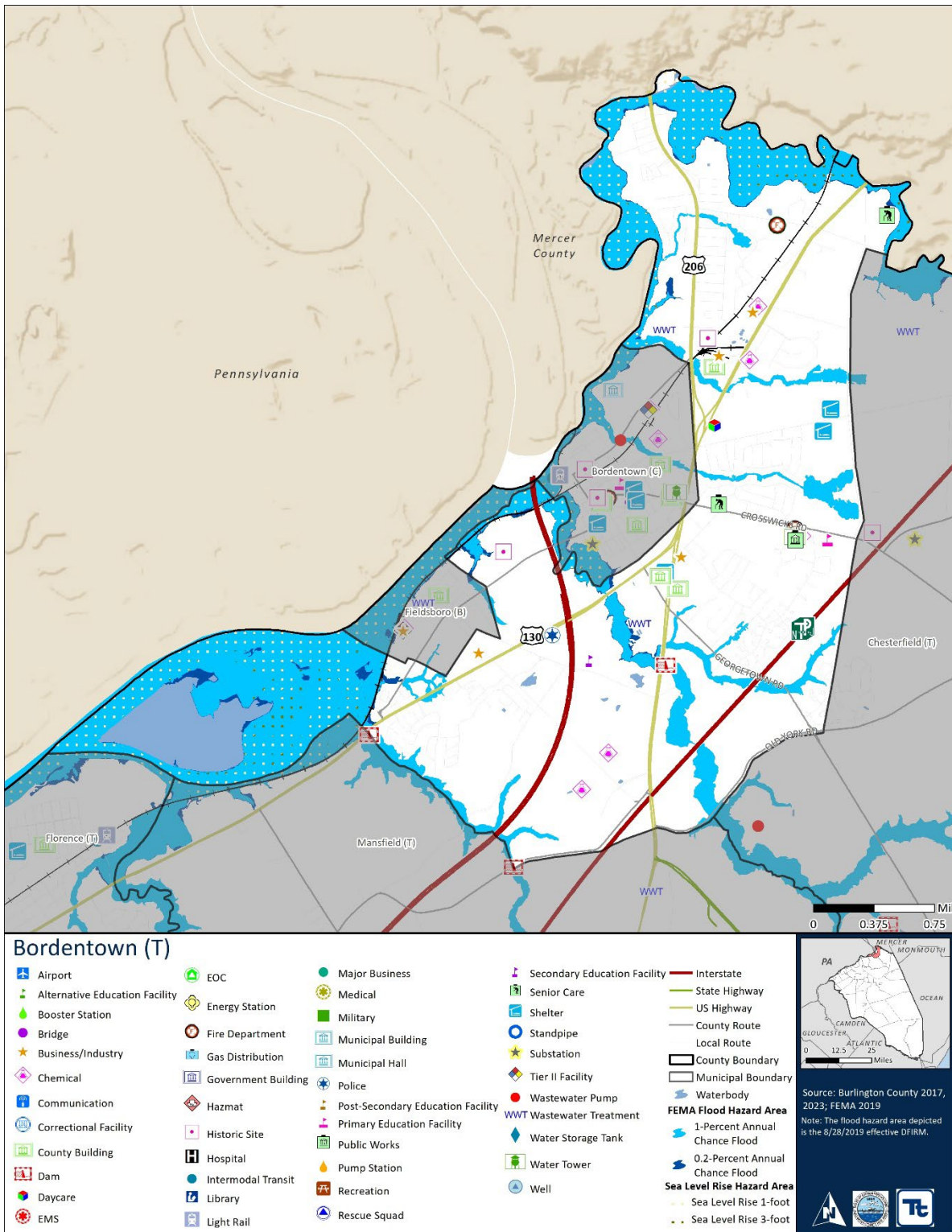
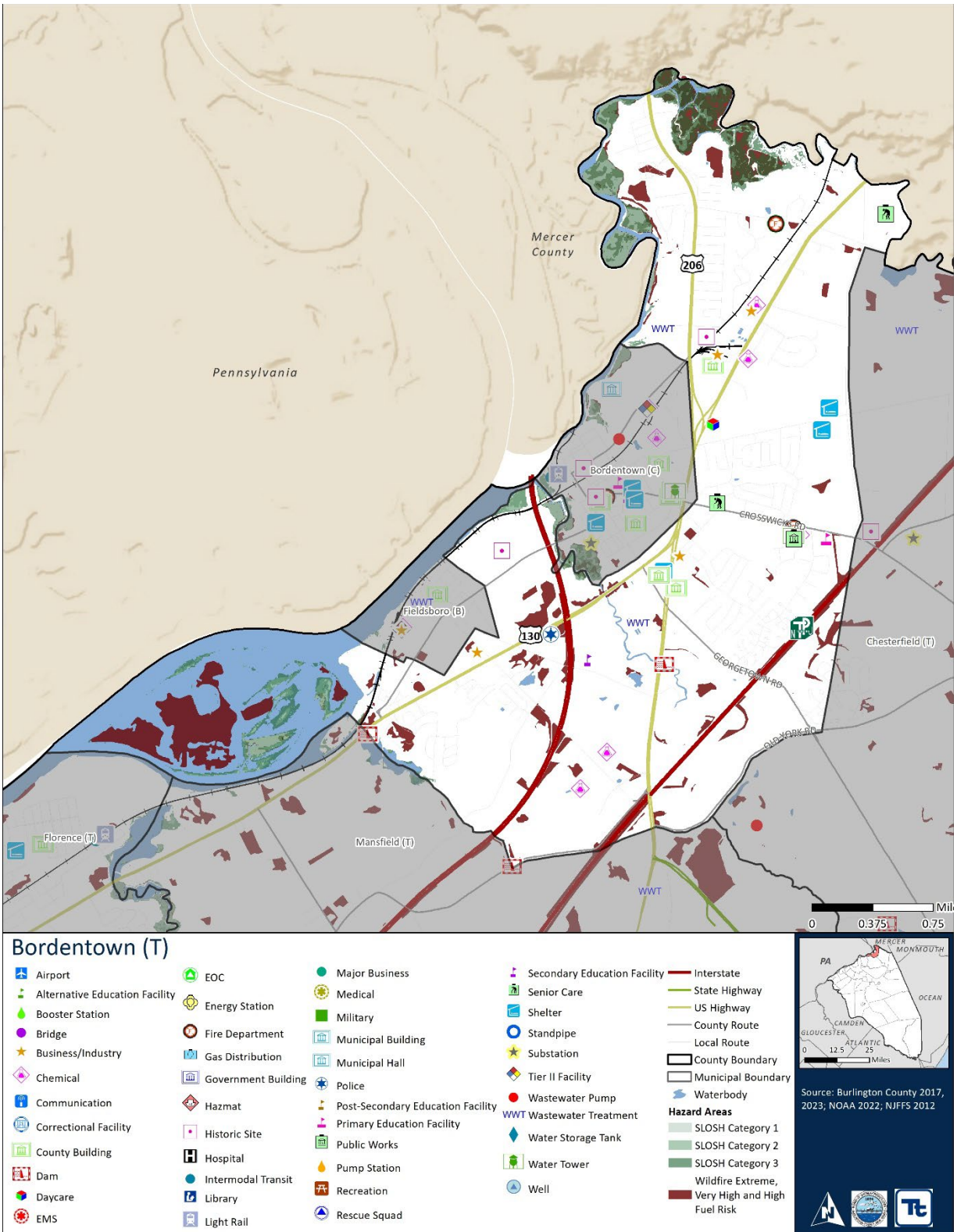




Figure 9.5-2. Township of Bordentown SLOSH and Wildfire Hazard Area Extent and Location Map





## Hazard Event History

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

The Township of Bordentown’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 Bordentown 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 9.5-13. 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.	The Township did not incur any damages or losses from this event.
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.	The Township was subject to closures and enforced masking and social distancing.
July 30, 2020	Thunderstorm Wind	No	Scattered thunderstorms, some of which became strong to severe, produced several reports of damaging winds. Wires were downed in Riverside, Burlington City, Mansfield, and Bordentown.	Downed wires.



Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
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.	Heavy rains and localized flooding.
February 18-19, 2021	Winter Storm, Winter Weather	No	A wintry precipitation occurred with many areas seeing snow, some locally heavy, with a change to sleet and rain towards coastal areas. Snowfall reports include 6.4 inches in Delanco and 6.3 inches in Bordentown.	Heavy snowfall, but otherwise the Township did not incur any damages or losses from this event.
June 14, 2021	Thunderstorm Wind	No	Strong and severe storms posed a risk of damaging winds along with some hail. Multiple trees and powerlines were downed in Bass River, Moorestown, Florence, and Bordentown.	Downed trees and wires, power outages.
July 1, 2021	Thunderstorm Wind	No	Severe storms capable of producing straight line wind damage caused reports of downed trees and power outages due to winds. Wires were reported down in Pemberton and Bordentown.	Downed trees and wires, power outages.
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.	Flash flooding, vegetation damage from tornado.
February 18, 2022	Thunderstorm Wind	No	Locally damaging wind gusts occurred ahead of a weather system; isolated thunderstorms later developed. This system strengthened and produced several instances of damaging wind near the I-95 corridor. Tree	Tree limbs reported down, but otherwise the Township did not incur any damages or losses from this event.



Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
			limbs were reported down in Mount Laurel and Bordentown.	

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 Bordentown’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 Bordentown. The Township of Bordentown 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 Bordentown indicated the following:

- The Township indicated the dam failure hazard ranking should be decreased from Medium to Low due to the dam’s low potential impacts levels.
- The Township agreed with the remainder of the calculated hazard rankings.

Table 9.5-14. Hazard Ranking Input

Hazard	Hazard Ranking – High/Medium/Low
Dam Failure	Low
Disease Outbreak	Medium
Drought	Low



Hazard	Hazard Ranking – High/Medium/Low
Earthquake	Low
Extreme Temperatures	Medium
Flood	Low
Severe Weather	High
Severe Winter Weather	Medium
Wildfire	Low

### Critical Facilities

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

**Table 9.5-15. Potential Flood Exposure of Critical Facilities and Community Lifelines**

Name	Type	Exposure	
		1% Event	0.2% Event
Abstein & Brady Dam	Dam	Yes	Yes
Dunn's Mills Dam	Dam	Yes	Yes

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

### Identified Issues

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

- A recent audit of New Jersey’s model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA’s review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are: the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance.
- 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, a plan with outlined responsibilities is needed to adequately address post-disaster cleanup operations.
- The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in



need of a formal process and plan to provide a framework for conducting such inspections and determinations.

- Residents and business may not be informed on hazard risks or how to mitigate the risks associated with the hazards which may impact the Township.
- Critical facilities in the Township do not have back-up power to maintain continuity of operations.
- There are multiple dams, which are critical infrastructures, located in the 1- and 0.2-percent flood hazard areas. These structures have the potential to impact those living nearby.
- 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, but other properties may be impacted by flooding as well.

### 9.5.7 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

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



Table 9.5-16. Status of Previous Mitigation Actions

Project #	Project	Responsible Party	What is the status? (e.g., In Progress, No Progress, Ongoing Capability, or Completed) If in progress or completed, please describe the funding source, cost and who is implementing.	If you did not complete the action, should the action be included in the 2024 HMP (i.e., there is still a need, this is still a priority)?		
				Yes/No	If Yes, please describe the original problem (i.e., hazard, location, historic losses)	If Yes, identify the responsible department/person to implement the project.
T. Bordentown-1 (former BTT-1)	Jumble Gut Glen: Remove and replace the culvert at Glen Rd and Orchard Ave	Bordentown Twp. with support from FEMA	Completed	No	-	-
T. Bordentown-2 (former BTT-2)	Stabilize streams and banks to restore the grade to stop bank collapse – example: Jumble Gut Glen	Bordentown Twp. with support from FEMA	No Progress	No	-	-
T. Bordentown-3 (former BTT-3)	Jumble Gut Run South Amboy: Remove & Replace storm sewer lines and culvert where necessary – example: Jumble Gut Glen	Bordentown Twp. with support from FEMA	No Progress	No	-	-
T. Bordentown-4 (former BTT-9)	Evaluate benefits of participating in CRS program	Twp. Committee; Planning	No Progress	No	-	-
T. Bordentown-5 (former BTT-10)	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"> <li>Disaster preparedness</li> <li>Hazard mitigation</li> </ul>	Municipality with support from Planning Partners, County Planning, NJOEM, FEMA	In Progress	Yes	Residents and business may not be informed on hazard risks or how to mitigate the risks associated with the hazards which may impact the Township.	Municipality with support from Planning Partners, County Planning, NJOEM, FEMA
T. Bordentown-6 (former BTT-12)	Obtain and install backup power sources at critical facilities.	Municipality with support from County, NJOEM and FEMA	In Progress	Yes	Critical facilities in the Township do not have back-up power to	Municipality with support from County, NJOEM and 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.
					maintain continuity of operations.	
T. Bordentown-7	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	The Township has one repetitive loss property.	Floodplain administrator
T. Bordentown-8	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	Completed	No	-	-
T. Bordentown-9	Periodically evaluate the condition of bulkhead and conduct appropriate maintenance	Municipality	Ongoing Capability	No	-	-



## Additional Mitigation Efforts

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

- Stormwater management

## Proposed Hazard Mitigation Initiatives for the HMP Update

The Township of Bordentown 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 9.5-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA						CRS			
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X	X		X	X		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 Bordentown 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.

DRAFT



### Action 2024-BordentownTwp-01. Code Coordinated Ordinance

<b>Lead Agency:</b>	Floodplain Administrator
<b>Supporting Agencies:</b>	Construction Official, Administration, NFIP State Coordinator, FEMA Regional Office, Community Development
<b>Hazard(s) of Concern:</b>	Flood
<b>Description of the Problem:</b>	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.
<b>Description of the Solution:</b>	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.
<b>Estimated Cost:</b>	Staff time
<b>Potential Funding Sources:</b>	Municipal budget
<b>Implementation Timeline:</b>	Within 5 years
<b>Goals Met:</b>	1, 2, 5, 7
<b>Benefits:</b>	The updated ordinance will improve floodplain management, meet NFIP requirements, and increase resilience of new and substantially improved structures in the floodplain.
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better regulation of construction standards within the Special Flood Hazard Area where significant risk to socially vulnerable populations exists.
<b>Impact on Future Development:</b>	The action will result in stronger regulation of construction standards for future development in the Special Flood Hazard Area.
<b>Impact on Critical Facilities/Lifelines:</b>	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.
<b>Impact on Capabilities:</b>	This action will improve floodplain management capabilities through better outlining of responsibilities and administrative procedures.
<b>Climate Change Considerations:</b>	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.	
<b>Mitigation Category:</b>	Local Plans and Regulations	
<b>CRS Category:</b>	Preventative	
<b>Priority:</b>	High	
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>
	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-BordentownTwp-02. Disaster Debris Management Plan

<b>Lead Agency:</b>	Public Works	
<b>Supporting Agencies:</b>	OEM	
<b>Hazard(s) of Concern:</b>	Dam Failure, Drought, Earthquake, Extreme Temperature, Flood, Severe Weather, Severe Winter Weather, Wildfire	
<b>Description of the Problem:</b>	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, a plan with outlined responsibilities is needed to adequately address post-disaster cleanup operations.	
<b>Description of the Solution:</b>	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.	
<b>Estimated Cost:</b>	Staff time	
<b>Potential Funding Sources:</b>	Municipal budget	
<b>Implementation Timeline:</b>	Within 5 years	
<b>Goals:</b>	5, 6	
<b>Benefits:</b>	The action will result in increased quicker and more efficient cleanup after disaster events.	
<b>Impact on Socially Vulnerable Populations:</b>	N/A	
<b>Impact on Future Development:</b>	N/A	
<b>Impact on Critical Facilities/Lifelines:</b>	N/A	
<b>Impact on Capabilities:</b>	The action will result in increased post disaster capabilities.	
<b>Climate Change Considerations:</b>	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.	
<b>Mitigation Category:</b>	Local Plans and Regulations	
<b>CRS Category:</b>	Emergency Services	
<b>Priority:</b>	Medium	
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>
	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-BordentownTwp-03. Substantial Damage Management Plan

<b>Lead Agency:</b>	Floodplain Administrator
<b>Supporting Agencies:</b>	Public Works, OEM, Construction Department, Community Development
<b>Hazard(s) of Concern:</b>	Dam Failure, Drought, Earthquake, Extreme Temperature, Flood, Severe Weather, Severe Winter Weather, Wildfire
<b>Description of the Problem:</b>	<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"> <li>• Determine where the damage occurred within the community and if the damaged structures are in an SFHA.</li> <li>• Determine what to use for “market value” and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.</li> <li>• Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure’s pre-damage value.</li> <li>• Require permits for floodplain development.</li> </ul> <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>
<b>Description of the Solution:</b>	<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> (<a href="https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf">https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf</a>). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.</p>
<b>Estimated Cost:</b>	Low
<b>Potential Funding Sources:</b>	Municipal budget
<b>Implementation Timeline:</b>	Within 5 years to develop the plan; ongoing to maintain and update the plan
<b>Goals Met:</b>	1, 2 5, 7
<b>Benefits:</b>	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.
<b>Impact on Socially Vulnerable Populations:</b>	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.
<b>Impact on Future Development:</b>	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.





<b>Impact on Critical Facilities/Lifelines:</b>	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.	
<b>Impact on Capabilities:</b>	This action improves disaster recovery capabilities.	
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.	
<b>Mitigation Category:</b>	Local Plans and Regulations	
<b>CRS Category:</b>	Emergency Services, Preventative Measures	
<b>Priority:</b>	High	
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>
	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-BordentownTwp-04. Public Education and Outreach

<b>Lead Agency:</b>	Township OEM
<b>Supporting Agencies:</b>	Planning Partners, County Planning, NJOEM, FEMA
<b>Hazard(s) of Concern:</b>	Dam Failure, Disease Outbreak, Drought, Earthquake, Extreme Temperature, Flood, Severe Weather, Severe Winter Weather, Wildfire
<b>Description of the Problem:</b>	Residents and business may not be informed on hazard risks or how to mitigate the risks associated with the hazards which may impact the Township.
<b>Description of the Solution:</b>	<p>Conduct and facilitate community and public education and outreach for residents and businesses to include, but not be limited to, the following to promote and effect natural hazard risk reduction:</p> <ul style="list-style-type: none"> <li>• Provide and maintain links to the HMP website, and regularly post notices on the County/municipal homepage(s) referencing the HMP webpages.</li> <li>• Prepare and distribute informational letters to flood vulnerable property owners and neighborhood associations, explaining the availability of mitigation grant funding to mitigate their properties, and instructing them on how they can learn more and implement mitigation.</li> <li>• Use email notification systems and newsletters to better educate the public on flood insurance, the availability of mitigation grant funding, and personal natural hazard risk reduction measures.</li> <li>• Work with neighborhood associations, civic and business groups to disseminate information on flood insurance and the availability of mitigation grant funding.</li> </ul>
<b>Estimated Cost:</b>	Low
<b>Potential Funding Sources:</b>	Municipal budget
<b>Implementation Timeline:</b>	Within 1 year
<b>Goals Met:</b>	1, 3, 4, 7
<b>Benefits:</b>	This action will inform all populations on the hazards which may occur in the Township, how to mitigate the risk associated with those hazards, potentially increase the number of flood-insured residents, potentially decrease the number of homes at risk to flooding impacts.
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations are often the most at-risk to hazards due to pre-existing conditions and socioeconomic status. This action will educate and inform all populations, including the socially vulnerable, on the hazards which may occur in the Township and how to mitigate the risk associated with those hazards.
<b>Impact on Future Development:</b>	N/A
<b>Impact on Critical Facilities/Lifelines:</b>	N/A
<b>Impact on Capabilities:</b>	N/A
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events.
<b>Mitigation Category</b>	Education and Awareness Programs



<b>CRS Category</b>	Public Information	
<b>Priority</b>	High	
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>
	No Action	The public will need to rely on their own research and knowledge for disease prevention and protection
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in Burlington County
	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-BordentownTwp-05. Generators at Critical Facilities

<b>Lead Agency:</b>	Engineering	
<b>Supporting Agencies:</b>	Township OEM, County OEM, NJOEM, and FEMA	
<b>Hazard(s) of Concern:</b>	Dam Failure, Disease Outbreak, Drought, Earthquake, Extreme Temperature, Flood, Severe Weather, Severe Winter Weather, Wildfire	
<b>Description of the Problem:</b>	Critical facilities in the Township do not have back-up power to maintain continuity of operations.	
<b>Description of the Solution:</b>	The Township will obtain and install backup power sources (generators) at critical facilities to ensure continuation of critical functions during power outages.	
<b>Estimated Cost:</b>	High	
<b>Potential Funding Sources:</b>	FEMA BRIC, HMGP, Municipal Budget	
<b>Implementation Timeline:</b>	5 years	
<b>Goals Met:</b>	1, 6, 7	
<b>Benefits:</b>	The Township will be able to provide a continued safe, local location for residents to cool or warm themselves during extreme temperature or severe winter weather events and/or provide a means for continuity of operations.	
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations in need of warming or cooling will utilize the centers; furthermore, those with needs tied into power consumption (oxygen tanks, dialysis, etc.) will require a power source. Socially vulnerable populations also may be reliant on points of distribution for resources before, during, or after a hazard event.	
<b>Impact on Future Development:</b>	N/A	
<b>Impact on Critical Facilities/Lifelines:</b>	Locations identified in this action are critical facilities. These facilities may need an emergency generator to provide continued assistance to vulnerable populations and/or provide a means for continuity of operations.	
<b>Impact on Capabilities:</b>	The action would create a new capability for the Township.	
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides a safe location with air conditioning and heat for residents and visitors to locate to during hazard events and/or provide a means for continuity of operations.	
<b>Mitigation Category</b>	Structure and Infrastructure Project	
<b>CRS Category</b>	Emergency Services	
<b>Priority</b>	Medium	
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>
	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-BordentownTwp-06. Dam Owner Partnership

<b>Lead Agency:</b>	Township OEM	
<b>Supporting Agencies:</b>	NJDEP, Dam Owners	
<b>Hazard(s) of Concern:</b>	Dam Failure	
<b>Description of the Problem:</b>	There are multiple dams, which are critical infrastructures, located in the 1- and 0.2-percent flood hazard areas. These structures have the potential to impact those living nearby.	
<b>Description of the Solution:</b>	Work with the owners of the dams to ensure inspections and safety procedures are up to date and are shared with the Township and County OEM.	
<b>Estimated Cost:</b>	Low	
<b>Potential Funding Sources:</b>	Municipal budget	
<b>Implementation Timeline:</b>	Within 5 years	
<b>Goals Met:</b>	1, 2, 7	
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.	
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness in the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.	
<b>Impact on Future Development:</b>	N/A	
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam.	
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.	
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event. This action will increase the capabilities to respond to these events.	
<b>Mitigation Category</b>	Local Plans and Regulations	
<b>CRS Category</b>	Preventative Measures	
<b>Priority</b>	High	
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>
	No Action	Township will be unaware of any safety concerns for the dam or its condition
	Utilize information from NJDEP	Owners may not be required to submit a safety plan to the State
	Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory



### Action 2024-BordentownTwp-07. Repetitive Loss Mitigation

<b>Lead Agency:</b>	Floodplain Administrator
<b>Supporting Agencies:</b>	-
<b>Hazard(s) of Concern:</b>	Severe Weather, Flood
<b>Description of the Problem:</b>	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, but other properties may be impacted by flooding as well.
<b>Description of the Solution:</b>	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).
<b>Estimated Cost:</b>	Low for outreach, cost for implementation dependent on approaches taken and number of properties
<b>Potential Funding Sources:</b>	BRIC, FMA, HMGP, match from property owners
<b>Implementation Timeline:</b>	Within 5 years
<b>Goals Met:</b>	1, 2
<b>Benefits:</b>	Eliminates flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.
<b>Impact on Socially Vulnerable Populations:</b>	<ul style="list-style-type: none"> <li>Collecting data regarding homeowners that reside within flood prone areas provides an opportunity to introduce location-specific opportunities for assistance.</li> <li>Removing homes from the floodplain immediately removes the risk to life and property.</li> </ul>
<b>Impact on Future Development:</b>	<ul style="list-style-type: none"> <li>Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events.</li> <li>Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.</li> </ul>
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.
<b>Impact on Capabilities:</b>	Removing the risk from the immediate floodplain via acquisition of properties will free up resources for search and rescue and other emergency operations as needed.
<b>Climate Change Considerations:</b>	Climate change is likely to increase the frequency and severity of severe rainfall, flash flooding, riverine flooding, and coastal flooding from sea level rise and storm surge events. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life



	as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.	
<b>Mitigation Category</b>	Structure and Infrastructure Project	
<b>CRS Category</b>	Property Protection	
<b>Priority</b>	High	
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>
	No Action	-
	Levee around floodplain	Costly, not enough room
	Deployable flood barriers	Requires deployment. Residents may not have adequate time to deploy, especially those who are elderly or disabled.

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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 9.5-18. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Community Objectives	Total	High / Medium / Low
2024-BordentownTwp-01	Code Coordinated Ordinance	1	1	1	1	1	1	1	1	1	0	1	1	0	0	11	High
2024-BordentownTwp-02	Disaster Debris Management Plan	0	0	1	1	1	1	0	0	1	1	1	1	0	1	9	Medium
2024-BordentownTwp-03	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	0	11	High
2024-BordentownTwp-04	Public Education and Outreach	1	1	1	1	1	1	0	1	1	1	1	1	0	0	11	High
2024-BordentownTwp-05	Generators at Critical Facilities	1	0	1	1	1	0	0	1	1	1	0	1	1	0	9	Medium
2024-BordentownTwp-06	Dam Owner Partnership	1	1	1	1	1	1	0	1	1	0	1	1	1	0	11	High
2024-BordentownTwp-07	Repetitive Loss Mitigation	1	1	1	0	1	0	1	1	0	1	1	0	0	1	9	Medium

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