



## 9.8 CITY OF NORTH WILDWOOD

This section presents the jurisdictional annex for the City of North Wildwood. The annex includes a general overview of the City of North Wildwood; an assessment of the City of North Wildwood’s risk, vulnerability, and mitigation capabilities; and a prioritized action plan to implement prior to a disaster to reduce future losses and achieve greater resilience to natural hazards.

### 9.8.1 Staff and Local Stakeholder Involvement in Annex Development

The City of North Wildwood followed the planning process described in Section 3 (Planning Process). This annex was developed over the course of several months with input from many jurisdiction representatives. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization. The coronavirus pandemic resulted in a strain on local resources that limited some participation, but every effort was made to connect with staff and stakeholders and gain diverse input. Due to safety precautions, all meetings were held virtually. The following table summarizes who participated and in what capacity. Additional documentation on the municipality’s planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

**Table 9.8-1. Hazard Mitigation Planning Team and Contributors**

Primary Point of Contact		Alternate Point of Contact
Name / Title: Ronald C. Simone III, City Administrator Address: 901 Atlantic Avenue, North Wildwood, New Jersey 08260 Phone Number: (609) 522-2030x1260 Email: <a href="mailto:rsimone@northwildwood.org">rsimone@northwildwood.org</a>		Name / Title: Robert Matteucci, OEM Dep. Director Address: 901 Atlantic Avenue, North Wildwood, New Jersey 08260 Phone Number: (609) 522-0191 Email: <a href="mailto:rmatteucci@northwildwoodnjoem.org">rmatteucci@northwildwoodnjoem.org</a>
NFIP Floodplain Administrator		
Name / Title: Ralph Petrella, PE, City Engineer/Floodplain Manager Address: 901 Atlantic Avenue, North Wildwood, New Jersey 08260 Phone Number: (609) 465-2600x316 Email: <a href="mailto:rpetrellajr@vannoteharvey.com">rpetrellajr@vannoteharvey.com</a>		
Name	Title	Method of Participation
Ronald C. Simone III	City Administrator	Primary point of contact, provided data and information, contributed to the mitigation strategy, reviewed draft of annex and provided comment, reviewed and signed off on annex
Robert Matteucci	OEM Deputy Director	Alternate point of contact, took stakeholder survey, reviewed and signed off on annex
Ralph Petrella, PE	City Engineer/Floodplain Manager	NFIP floodplain administrator, reviewed and signed off on annex
Douglas Nordberg	Superintendent of Public Works	Took stakeholder survey, reviewed and signed off on annex
Michael Blizzard	Deputy Chief, North Wildwood Fire Department	Took stakeholder survey
Patrick Resenello	Mayor	Reviewed and signed off on annex
Todd Burkey	Chief Financial Officer	Reviewed and signed off on annex
Daniel Spiegel	Construction Official/Fire Official/Zoning Officer	Reviewed and signed off on annex
Matthew T. Gallagher	Chief of Police	Reviewed and signed off on annex
Dominick J. McClain	Fire Chief	Reviewed and signed off on annex



## 9.8.2 Jurisdiction Profile

First established as the Borough of Anglesea in June of 1885, North Wildwood is a City located on a barrier island of the Atlantic Coast in Cape May County, New Jersey, United States. The ‘Five Mile Island’ encompasses five (5) municipalities: North Wildwood, West Wildwood, Wildwood, Wildwood Crest, and Lower Township (Diamond Beach). North Wildwood has twenty-six (26) streets running North to South from 1<sup>st</sup> - 26<sup>th</sup> Avenues, and nine (9) streets running East to West from JFK to Maryland Avenue. North Wildwood also includes a section of land referred to as the ‘Anglesea’ section of North Wildwood that includes roads and permanent structures North of 1<sup>st</sup> Avenue, surrounded by natural marsh and a US Army Corps of Engineers (USACE) constructed Seawall.

The City of North Wildwood is a resort community economically driven by tourism with a full time population of greater than 4,000 full-time residents. That number increases in the summer months to over 75,000, with some holiday weekends being over 75,000.

The major thoroughfare through the City is New Jersey State Route 147 which connects to New Jersey Avenue, County Route 621. Route 147 has been completely reconstructed from the Garden State Parkway to New York Avenue. Route 147 is the only direct access to and from the City (City of North Wildwood, 2007).

According to the U.S. Census, the 2010 population for the City of North Wildwood was 4,041. The estimated 2019 population was 3,849, a 4.8 percent decrease from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 0.7 percent of the population is under the age of 5 and 39.4 percent is 65 years of age or older. Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

The Federal Emergency Management Agency (FEMA) classifies North Wildwood, as well as its neighboring five (5) municipalities as a Special Flood Hazard Area (SFHA), otherwise known as the 100 Year Floodplain. All properties on the island are located within that floodplain and are subject to the higher floodplain management standards of each individual municipality, in addition to FEMA’s superseding federal standards. As for the City of North Wildwood, the low-lying lands west of New Jersey Avenue are most vulnerable to routine flooding resulting from tidal, lunar, and coastal storm flooding events with water coming from the Back Bay. Significant damages were incurred to public infrastructure and private properties caused by various nor’easters, coastal and tropical storms including but not limited to storms in 1984, 1987, Hurricane Gloria in 1985, October 1991, January 1992, February 1998, Hurricane Irene in 2011, Super-storm Sandy in 2012, and the most severe recorded storm since a tide gauge/weather station was installed in North Wildwood at 5<sup>th</sup> & New York Avenue, Winter Storm Jonas in January of 2016.

North Wildwood’s beach, dune system and coastal wetlands that make up approximately 30% of the City’s land area has been dramatically reduced in recent years as a result of erosion and dune/wetlands scarping caused by coastal storms, despite the City’s annual shore protection efforts that exceed \$11 million since 2016. This erosion/damage is combatted with ongoing delays by USACE and NJDEP to proceed with the Hereford Inlet to Cape May Inlet Shore Protection Project. The beach/dune system provides natural and beneficial functions that help reduce flood damage, and coastal wetlands help spread floodwater over a large area, but until Federal and State superseding governing bodies proceed with anticipated shore protection efforts that have already been authorized through House/Senate appropriations, these natural lands will continue to deteriorate/depreciate at an accelerated rate. Natural wetlands and bodies of water – Atlantic Ocean, Hereford Inlet, and the Back-bay, surround the City of North Wildwood.

The vast majority of permanent development on the island was constructed before the establishment of the National Flood Insurance Program (NFIP) and, therefore, does not meet the requirements of local and FEMA



regulatory standards. Of the +500 properties identified as repetitive loss (RL) and severe repetitive loss (SRL), six properties were identified as being post-FIRM. The City continues to apply to FEMA via the FMA grant program for the elevation or acquisition properties to mitigate the flood hazard(s). These elevations and acquisitions come with deed restrictions – for elevations (must carry flood insurance for the life of the property, regardless of change in ownership) or acquisitions (no permanent structure can be built on the land again after demolition, property will be dedicated open space).

### 9.8.3 Growth/Development Trends

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to understanding a jurisdiction’s overall risk to its hazards of concern. Table 9.8-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.8-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development.

**Table 9.8-2. Recent and Expected Future Development**

Type of Development	2015	2016	2017	2018	2019
<b>Number of Building Permits for New Construction Issued Since the Previous HMP</b>					
Single and Two-Family Units	40	31	54	34	49
Multi-Family	2	3	6	6	2
Other (commercial, mixed-use, etc.)	2	0	1	1	0
Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zone(s)*	Description / Status of Development
<b>Recent Major Development and Infrastructure from 2015 to Present</b>					
None identified					
<b>Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years</b>					
None anticipated					

\* Only location-specific hazard zones or vulnerabilities identified.

All new properties constructed were within the SFHA and consequently were subject to strict floodplain management standards pursuant to the City’s Floodplain Management Ordinance.

### 9.8.4 Capability Assessment

The City of North Wildwood performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 6 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community’s adaptive capacity.
- Information on National Flood Insurance Program (NFIP) compliance.



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 this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.8.4). The City of North Wildwood identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy.

**PLANNING, LEGAL AND REGULATORY CAPABILITY**

The table below summarizes the legal and regulatory tools that are available to the City of North Wildwood and where hazard mitigation has been integrated.

**Table 9.8-3. Planning, Legal and Regulatory Capability**

	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Have aspects of this been integrated into your mitigation plan?	
				If yes- how? Describe in comments	If no - can it be a mitigation action? If yes, add Mitigation Action #.
<b>Codes, Ordinances, &amp; Requirements</b>					
<b>Building Code</b>	Yes	State & Local	Yes	Yes	-
<i>Comment:</i>					
<ul style="list-style-type: none"> <li>State mandated on local level under NJAC 5:23-3.14. International Building Code – New Jersey Edition, 2018, NJAC 5:24-3.14 Adopted 9/3/2019 (with NJ edits dated March 14, 2020 coming soon)</li> <li>Construction Codes, Uniform, Chapter 200, adopted by City Council 11-17-2009, amended through 2013. There hereby is established in the City of North Wildwood an "enforcing agency," as that term is defined in the State Uniform Construction Code Act, N.J.S.A. 52:27D-119 et seq., to be known as the "North Wildwood Construction Office," consisting of a Construction Official, a Building Subcode Official, a Fire Protection Subcode Official, a Plumbing Subcode Official, an Electrical Subcode Official.</li> <li>The Ordinance contains no specific mitigation actions other than those required in the Uniform Construction Code.</li> <li>Floodplain Management Ordinance of the City of North Wildwood was adopted in 2017, which includes higher regulatory standards for building including BFE + 2' freeboard and the adoption of the 2017 FIRM.</li> </ul>					
<b>Zoning Code</b>	Yes	State & Local	Yes – if municipality has a Planning Board	Yes	-
<i>Comment:</i>					
<ul style="list-style-type: none"> <li>State permissive on local level. Per State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976, 40-55D-62: 49. Power to zone, requires all jurisdictions to have current zoning and other land development ordinances after the planning board has adopted the land use element and master plan.</li> <li>Land Development, Chapter 276, adopted by the City Council 05-19-1994 and amended though 2019. A comprehensive ordinance regulating and limiting the uses of land and the uses and locations of buildings and structures; regulating and restricting the height and bulk of buildings and structures and determining the area of yards and other open spaces; regulating and restricting the density of population in order to promote and protect the public health, safety, morals and general welfare.</li> <li>This Chapter contains comprehensive regulations for coastal flood hazard protection and recognizes that; The City of North Wildwood occupies part of a low-lying barrier island which is exposed constantly to the threat of coastal flooding due to hurricanes, northeasters, and storms; The entire City of North Wildwood has been designated by the Federal Emergency Management Agency as being exposed to a 1% or greater chance of being flooded in any given year. The oceanfront and lands along Hereford Inlet have been designated as being exposed to high velocity waves; The beaches and dunes of North Wildwood are located entirely within these coastal flood hazard areas and, if properly maintained and protected, provide some natural protection from the floodings that result from storm waves; and The predictable hazards of coastal flooding subject the residents, owners of businesses, and visitors of the City of North Wildwood to potential loss of life, personal injury, and property damage, as well as disruption of commerce, resort activities, and governmental services, all of which adversely affect the public health, safety and welfare.</li> <li>The City also has overlay mapping on the Zoning Map, which prohibits development in Zoning Districts based on conservation elements – Ocean Conservation, Inlet Conservation, Bay Conservation, and ROSE (Recreation, Open Space &amp; Education)</li> </ul>					
<b>Subdivisions</b>	Yes	County & Local	Yes – if municipality has a Planning	Yes	-



	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated? Board	Have aspects of this been integrated into your mitigation plan?	
				If yes- how? Describe in comments	If no - can it be a mitigation action? If yes, add Mitigation Action #.
<p><b>Comment:</b></p> <ul style="list-style-type: none"> <li>P.L.1975, c.291 (C.40:55D-47): 40:55D-37. Grant of power; referral of proposed ordinance; county planning board approval a. The governing body may by ordinance require approval of subdivision plats by resolution of the planning board as a condition for the filing of such plats with the county recording officer and approval of site plans by resolution of the planning board as a condition for the issuance of a permit for any development, except that subdivision or individual lot applications for detached one or two dwelling-unit buildings shall be exempt from such site plan review and approval; provided that the resolution of the board of adjustment shall substitute for that of the planning board whenever the board of adjustment has jurisdiction over a subdivision or site plan pursuant to subsection 63b. of this act . Dictated by the Municipal Land Use Law. NJ Statute 40:27-6.2 - the board of freeholders of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions affecting county road or drainage facilities as set forth and limited hereinafter in this section.</li> <li>Land Development, Chapter 276, adopted by the City Council 05-19-1994 and amended though 2019. A comprehensive ordinance regulating and limiting the uses of land and the uses and locations of buildings and structures; regulating and restricting the height and bulk of buildings and structures and determining the area of yards and other open spaces; regulating and restricting the density of population in order to promote and protect the public health, safety, morals and general welfare.</li> <li>Subdivision proposals - All subdivision proposals shall be consistent with the need to minimize flood damage; shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage; shall have adequate drainage provided to reduce exposure to flood damage; and the base flood elevation data shall be provided for subdivision proposals and other proposed development which contain at least 50 lots or five acres (whichever is less).</li> </ul>					
<b>Stormwater Management</b>	Yes	State/Local	Yes	Yes	-
<p><b>Comment:</b></p> <ul style="list-style-type: none"> <li>See Title 7 of the NJ Administrative Code, N.J.A.C. 7:8</li> <li>Stormwater Control, Chapter 379, adopted by City Council on 04-05-2005. It is the purpose of this Chapter that flood control, groundwater recharge and pollutant reduction through nonstructural or low-impact techniques shall be explored before relying on structural best management practices (BMPs). Structural BMPs should be integrated with nonstructural stormwater management strategies and proper maintenance plans. Nonstructural strategies include both environmentally sensitive site design and source controls that prevent pollutants from being placed on the site or from being exposed to stormwater.</li> <li>This chapter shall be applicable to all site plans and subdivisions for the major developments that require preliminary or final site plan or subdivision review:</li> <li>Stormwater management measures shall be designed to take into action the existing site conditions, including, for example, environmentally critical areas; wetlands; flood-prone areas; slopes; depth to seasonal high water table; soil type, permeability and texture; drainage area and drainage patterns.</li> <li>The City is foregoing a City-wide bulkhead survey to determine bulkhead elevations and bayside elevations to prevent flooding in our most floodprone areas</li> </ul>					
<b>Post-Disaster Recovery</b>	Yes	State/Federal	Yes	No	-
<p><b>Comment:</b> The City documents all critical facilities and assets prior to and immediately following disasters for the purposes of documenting damages in the chance that the corresponding threshold of damage has been reached and there is a subsequent Federal Disaster Declaration. Dependent on the damage and severity of disaster, the municipality is eligible to receive 75% reimbursement of damages and also funds potentially utilized toward mitigation efforts from FEMA.</p>					
<b>Real Estate Disclosure</b>	Yes	State, Division of Consumer Affairs	Yes	No	-
<p><b>Comment:</b> N.J.A.C. 13:45A-29.1 - Before signing a contract of sale, all purchasers must receive a New Jersey Public Offering Statement (POS) approved by the New Jersey Real Estate Commission. The POS provides information such as estimated completion dates for improvements, fees for services and amenities, the type of title and ownership interest being offered, its proximity to hospitals, schools, fire and police, as well as any hazards, risks or nuisances in or around the subdivision.</p>					
<b>Growth Management</b>	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
<p><b>Comment:</b></p> <ul style="list-style-type: none"> <li>State Mandated on a municipal level. See Zoning Ordinance; Also - Plan Endorsement Process via the State Development &amp; Redevelopment Plan provides for the delineation of Growth Areas and Environs; Use of the endorsed plans in the implementation of state environmental regulations makes the Plan Endorsement process a growth management strategy. The City has an active Community Forestry and Public Lands Vegetation Management Plan that allows for growth management within environmentally</li> </ul>					



Section 9.8 - City of North Wildwood

	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Have aspects of this been integrated into your mitigation plan?	
				If yes- how? Describe in comments	If no - can it be a mitigation action? If yes, add Mitigation Action #.
<i>sensitive zone such as the natural dunes.</i>					
<b>Site Plan Review</b>	Yes	County & Local	Yes – if municipality has a Planning Board	Yes	-
<b>Comment:</b> <ul style="list-style-type: none"> <li>Dictated by the Municipal Land Use Law which sets forth minimum requirements for plans, etc., timeframes for development review. NJ Statute 40:27-6.2: The board of freeholders of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions affecting county road or drainage facilities as set forth and limited hereinafter in this section. 40:27-6.10 In order that county planning boards shall have a complete file of the planning and zoning ordinances of all municipalities in the county, each municipal clerk shall file with the county planning board a copy of the planning and zoning ordinances of the municipality in effect on the effective date of this act and shall notify the county planning board of the introduction of any revision or amendment of such an ordinance which affects lands adjoining county roads or other county lands, or lands lying within 200 feet of a municipal boundary, or proposed facilities or public lands shown on the county master plan or official county map. Such notice shall be given to the county planning board at least 10 days prior to the public hearing thereon by personal delivery or by certified mail of a copy of the official notice of the public hearing together with a copy of the proposed ordinance.</li> <li>Land Development, Chapter 276, adopted by the City Council 05-19-1994 and amended though 2019. A comprehensive ordinance regulating and limiting the uses of land and the uses and locations of buildings and structures; regulating and restricting the height and bulk of buildings and structures and determining the area of yards and other open spaces; regulating and restricting the density of population in order to promote and protect the public health, safety, morals and general welfare.</li> </ul>					
<b>Environmental Protection</b>	Yes	Local	No	Yes	-
<b>Comment:</b> <ul style="list-style-type: none"> <li>Environmental Commission, Chapter 29, adopted by City Council 11-15-1994.</li> <li>The Environmental Commission shall have the power to conduct research into the use and possible use of the open land areas in the city and may coordinate the activities of unofficial bodies organized for similar purposes, or may advertise, prepare, print and distribute; to study and made recommendations concerning open space preservation, water resources management, air pollution control, solid waste management, noise control, soil and landscape protection, environmental appearance, marine resources, and protection of flora and fauna; subject to the approval of the governing body; acquire real and personal property, or any interest therein, but in the name of the municipality. Such acquisition may be by gift, purchase, grant, bequest, devise, or lease, and the Commission shall administer the same for the Commission's purposes, subject to the terms of the conveyance or gift.</li> <li>Environmental map overlays also reflected on City's Zoning Map, preventing development in environmentally sensitive areas.</li> </ul>					
<b>Flood Damage Prevention</b>	Yes	State & Local	Yes	Yes	-
<b>Comment:</b> <ul style="list-style-type: none"> <li>The NJ State Law Flood Area Control Act (N.J.S.A. 58:16A-52) and the National Flood Control Act of 1968 (NFIP) are state and federal acts to support minimization of flood losses. They do not require local adoption but as enforced by the NJDEP, the floodplain ordinances of each municipality must be reviewed for compliance with these regulations. In addition, participation in the NFIP requires a floodplain ordinance. Regulations for the Flood Control Hazards Act were adopted in 2007 and amended effective June 20, 2016.</li> <li>Flood Damage Prevention, Chapter 252, adopted by the City Council 08-01-2017. This Chapter shall apply to all areas of special flood hazards within the jurisdiction of the City of North Wildwood, Cape May County, New Jersey.</li> <li>The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This chapter does not imply that land outside the area of special flood hazards or uses permitted within such areas will be free from flooding or flood damages.</li> <li>New construction and substantial improvement of any residential structure located in an A or AE Zone shall have the lowest floor, including the basement together with the attendant utilities (including all electrical, heating, ventilating, air-conditioning and other service equipment) and sanitary facilities, elevated at or above the base flood elevation plus two feet or as required by ASCE/SEI 24-14, Table 2-1, whichever is more restrictive.</li> </ul>					
<b>Wellhead Protection</b>	No	-	No	-	-
<b>Comment:</b>					
<b>Emergency Management</b>	No	-	No	-	-
<b>Comment:</b>					





	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Have aspects of this been integrated into your mitigation plan?	
				If yes- how? Describe in comments	If no - can it be a mitigation action? If yes, add Mitigation Action #.
<b>Climate Change</b>	No	-	No	-	-
<b>Comment:</b>					
<ul style="list-style-type: none"> <li>Reflected in the City's comprehensive master plan with direct mention to climate change.</li> </ul>					
<b>Disaster Recovery Ordinance</b>	No	-	No	-	-
<b>Comment:</b>					
<b>Disaster Reconstruction Ordinance</b>	No	-	No	-	-
<b>Comment:</b>					
<b>Bulkhead Enforcement Standards</b>	Yes	State & Local	No	Yes	2021-North Wildwood-009
<b>Comment:</b>					
<ul style="list-style-type: none"> <li>Bulkheads, Chapter 178, adopted by City Council, 03-0-2008, amended through 2017. It is the purpose and intent of this Chapter to establish uniform regulations for the construction, reconstruction, renovation or repair of existing or new bulkheads within the City of North Wildwood.</li> <li>The top elevation of any bulkhead to be constructed or reconstructed shall be set at a minimum elevation of 8.0 msl Datum 1929.</li> </ul>					
<b>Planning Documents</b>					
<b>Comprehensive / Master Plan</b>	Yes	State & Local	Yes	Yes	-
<b>Comment:</b>					
<ul style="list-style-type: none"> <li>2018 Revised NJ Statute 40:27-2; the county planning board shall make and adopt a master plan for the physical development of the county. The master plan of a county, with the accompanying maps, plats, charts, and descriptive and explanatory matter, shall show the county planning board's recommendations for the development of the territory covered by the plan, and may include, among other things, the general location, character, and extent of streets or roads, viaducts, bridges, waterway and waterfront developments, parkways, playgrounds, forests, reservations, parks, airports, and other public ways, grounds, places and spaces; the general location and extent of forests, agricultural areas, and open-development areas for purposes of conservation, food and water supply, sanitary and drainage facilities, or the protection of urban development, and such other features as may be important to the development of the county. The county planning board shall encourage the co-operation of the local municipalities within the county in any matters whatsoever which may concern the integrity of the county master plan and to advise the board of chosen freeholders with respect to the formulation of development programs and budgets for capital expenditures. Per State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976 40:55D-28 provides the required components of a municipal Master Plan and requires that each municipality prepare a master plan and update it every 6 years. Further, all zoning ordinances must be consistent with the Master Plan or will not be benefitted from a presumption of validity.</li> <li>2010 Comprehensive Master Plan Update, adopted by the Planning Board and dated August 12, 2010. Policy: Revise the City's Land Use Plan and Land Development Ordinance in order to regulate development patterns based on the following: <ul style="list-style-type: none"> <li>Reinforce the integrity of the City's existing residential neighborhoods;</li> <li>Encourage commercial development, including Vertical Redevelopment designed to increase the City's resort hotel room base and demarcated areas for specialized entertainment- and attractions-type uses Eliminate potential conflicts created by incompatible uses permitted in the various zoning districts;</li> <li>Discourage inappropriate and incompatible land uses by creating a clearer differentiation among and between the City's various residential and commercial zoning districts;</li> <li>Revise the City's Land Use Plan to better reflect current development patterns;</li> <li>Respect and protect the City's physical (natural) environment; and</li> <li>Make appropriate use of the City's natural resources, including, where appropriate, encouraging the expansion of the City's water-dependent and water-oriented land uses along the bayside waterways.</li> </ul> </li> <li>The Plan has a significant section on the impacts of climate change, floodplains and vulnerability to coastal storms as well as mitigation recommendations.</li> </ul>					
<b>Capital Improvement Plan</b>	Yes	Local	No	Yes	-
<b>Comment:</b>					
<ul style="list-style-type: none"> <li>City of North Wildwood, Capital Plan 2019 – 2022. Ongoing and Forthcoming Projects: 2019 – 2020. This is not a descriptive plan, but rather a line item budget that includes more than one year. <ul style="list-style-type: none"> <li>Sand-Back-Pass – Beach replenishment project, prior to 2019 Summer Season, will include in-house and contractor projects</li> <li>Army Corps and NJDEP Shore Protection Project – Anticipated for 2022, includes major replenishment and dune reconstruction</li> <li>Seawall Repair – several sections in Anglesea must be repaired due to damages</li> <li>Seawall Extension – From 4th – 7th Avenues, the Seawall will be extended with funding provided by NJDEP</li> </ul> </li> </ul>					



Section 9.8 - City of North Wildwood

	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Have aspects of this been integrated into your mitigation plan?	
				If yes- how? Describe in comments	If no - can it be a mitigation action? If yes, add Mitigation Action #.
<ul style="list-style-type: none"> <li>○ Pump Station Project – Entertainment District, will protect evacuation route from flooding, will also include beautification improvements to Olde New Jersey Avenue</li> <li>○ Beach Patrol Building – Will include a new Beach Patrol Building at 15th Avenue</li> <li>○ Bulkhead Survey and Living Shoreline</li> <li>○ Back-bay pump-station</li> <li>○ Lou Booth Amphitheater and Park Renovations – Anticipated for Fall 2021</li> </ul>					
<b>Disaster Debris Management Plan</b>	No	-	No	-	2021-North Wildwood-018
<i>Comment:</i>					
<b>Floodplain or Watershed Plan</b>	Yes	Local	No	Yes	Yes
<i>Comment:</i>					
<ul style="list-style-type: none"> <li>• Floodplain Management Plan- 2017-2018 Annual Progress Report, original Floodplain Management Plan, 1999</li> <li>• The City has determined the Plan should be reviewed and implement additional strategies to reduce flood losses and to gain additional points under the CRS Program. The report includes the status of actions identified in the 2015 HMP.</li> </ul>					
<b>Stormwater Management Plan</b>	Yes	State & Local	Yes	No	No
<i>Comment:</i>					
<ul style="list-style-type: none"> <li>• The Stormwater Management rules (N.J.A.C. 7:8) rules were published in the February 2, 2004 NJ Register. These rules set forth the required components of regional and municipal stormwater management plans and establish the stormwater management design and performance standards for new (proposed) development. The design and performance standards for new development include groundwater recharge, runoff quantity controls, and runoff quality controls. The rules emphasize, as a primary consideration, the use of nonstructural stormwater management techniques including minimizing disturbance, minimizing impervious surfaces, minimizing the use of stormwater pipes, preserving natural drainage features, etc. The rules also set forth requirements for groundwater recharge, stormwater runoff quantity control, stormwater runoff quality control, and the prohibition of major development to be located within or to discharge runoff from the major development into a 300-foot riparian zone without prior authorization from the Department under the Flood Hazard Area Control Act Rules, N.J.A.C. 7:13.</li> <li>• The Stormwater Management Plan specifies projects/actions/initiatives/ to reduce the volume of stormwater and otherwise mitigate stormwater flooding.</li> </ul>					
<b>Stormwater Pollution Prevention Plan</b>	No	State & Local	Yes	No	No
<i>Comment:</i>					
<ul style="list-style-type: none"> <li>• The Phase II New Jersey Pollutant Discharge Elimination System Stormwater Regulation Program (NJPDES) rules (N.J.A.C. 7:14A) were published in the February 2, 2004, NJ Register. These NJPDES rules are intended to address and reduce pollutants associated with existing stormwater runoff. The NJPDES rules establish a regulatory program for existing stormwater discharges as required under the Federal Clean Water Act. These NJPDES rules govern the issuance of permits to entities that own or operate small municipal separate storm sewer systems, known as MS4s. Under this program, permits must be secured by municipalities, certain public complexes such as universities and hospitals, and State, interstate and federal agencies that operate or maintain highways. The permit program establishes the Statewide Basic Requirements that must be implemented to reduce nonpoint source pollutant loads from these sources. The Statewide Basic Requirements include measures such as: the adoption of ordinances (litter control, pet waste, wildlife feeding, proper waste disposal, etc.); the development of a municipal stormwater management plan and implementing ordinance(s); requiring certain maintenance activities (such as street sweeping and catch basin cleaning); implementing solids and floatables control; locating discharge points and stenciling catch basins; and a public education component.</li> </ul>					
<b>Urban Water Management Plan</b>	No	-	No	-	-
<i>Comment:</i>					
<b>Habitat Conservation Plan</b>	Yes	Local	No	Yes	-
<i>Comment:</i>					
<ul style="list-style-type: none"> <li>• Public Lands Vegetation Management Plan, dated March, 2016.</li> <li>• Plan Statement - Public lands, including wetlands, parks, beaches and dunes, within the City of North Wildwood are vitally important assets of the community. These vegetated features serve as protective buffers, productive habitats, valuable resources, aesthetically appealing vistas and recreational opportunities. The coastal wetlands expanses along the back bay portions of the City provide a myriad of natural and public benefits ranging from storm energy dampening to water quality improvements to habitats for a diversity of wildlife. The beach and dune complex provides for coastal storm protection, sand bank reserves for resource replenishment, critical wildlife habitat and recreation.</li> <li>• Goals of the Plan are to establish science-based practices to evaluate and manage public lands vegetation in a manner to achieve the goals of the City; maintain healthy, diverse natural areas, streetscapes and parklands comprised primarily of native and acceptable</li> </ul>					







	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Have aspects of this been integrated into your mitigation plan?	
				If yes- how? Describe in comments	If no - can it be a mitigation action? If yes, add Mitigation Action #.
<i>cultivated species; and establish and maintain appropriate vegetation that protects the integrity of the dune complex, allows safe public access to the beach and other public areas, enhances wildlife and promotes air circulation and appropriate view sheds.</i>					
<b>Economic Development Plan</b>	No	-	No	-	-
<i>Comment:</i>					
<b>Shoreline Management Plan</b>	Yes	State & Local	Yes – if located in a coastal zone	Yes	-
<i>Comment:</i>					
<ul style="list-style-type: none"> <li>NJ Coastal Area Facility Review Act (N.J.S.A. 13:19) or CAFRA regulates almost all development along the coast for activities including construction, relocation, and enlargement of buildings or structures, and excavation, grading, shore protection structures, and site preparation. This law is implemented through NJ's Coastal Zone management Rules N.J.A.C. 7:27E-1 et seq.</li> <li>There is not a Shoreline Plan but there is a Coastal Beach Zone Ordinance, Chapter 196, adopted by City Council in 1972 and subsequently amended. It is the intent of the City of North Wildwood in the creation of beach preservation and tidal floodplain zones to preserve the beach for public recreational purposes and also to prevent and eliminate conditions which, in the event of flood and storm, threaten the public health, safety and welfare and which lead to damage to or loss of property.</li> </ul>					
<b>Community Wildfire Protection Plan</b>	No	-	No	-	-
<i>Comment:</i>					
<b>Community Forest Management Plan</b>	Yes	State & Local	No	Yes	-
<i>Comment:</i>					
<ul style="list-style-type: none"> <li>Community Forestry Management Plan, 2016 – 2020, submitted to the State on May 2, 2016. The Community Forestry Management Plan (CFMP or Plan) for the City of North Wildwood was prepared to establish programs that recognize the unique nature of its tree resources and to plan future programs that will continue to protect and enhance these resources. The City established goals and objectives compatible with its forestry planning process vision to provide forest and tree streetscapes for the benefit of its residents and visitors in addition to the wildlife that rely on tree resources.</li> <li>Prolonged exposure of flooding during coastal storms and frequent salt spray common to barrier island communities create stressors on the community forest resources. Further, the damaging winds associated with these storms present unique sets of management protocols. In response the Plan recommends the development of a natural tree destruction response plan addressing tree damage.</li> <li>Enhancement of streetscapes and planting of appropriate trees and shrubs in public open spaces, as well as on private property, will be accomplished through a number of programs and outreach efforts.</li> </ul>					
<b>Transportation Plan</b>	Yes	State & Local	No	Yes	-
<i>Comment:</i>					
<ul style="list-style-type: none"> <li>2010 Comprehensive Master Plan Update, adopted by the Planning Board and dated August 12, 2010. In addition, there is a Vehicles and Traffic Ordinance, Chapter 418.</li> </ul>					
<b>Agriculture Plan</b>	No	-	No	-	-
<i>Comment:</i>					
<b>Climate Action Plan</b>	Yes	Local	No	Yes	-
<i>Comment:</i>					
<ul style="list-style-type: none"> <li>Getting to Resilience – Recommendations Report, dated December 2015. The “Getting to Resilience - Recommendations Report” provides a series of suggested actions to help strengthen flood resiliency in the City of North Wildwood, New Jersey. The report includes an overview of the Getting to Resilience (GTR) tool, describes North Wildwood’s GTR process, and offers recommendations that will help the City advance its flood resiliency goals and objectives.</li> <li>The GTR Plan recommendations, such as but not limited to, “Cross-reference flood risks and vulnerabilities in relevant sections of the municipal master plan, emergency operations plan and all hazards mitigation plan” could be considered as actions in the HMP.</li> </ul>					
<b>Tourism Plan</b>	Yes	Local	No	No	-
<i>Comment:</i>					
<ul style="list-style-type: none"> <li>There is a Tourists’ Development Commission created by Ordinance, Chapter 95. The purpose of this Commission is to promote tourism on behalf of the City of North Wildwood, through assisting the city with appropriate advertising and promotional literature.</li> </ul>					
<b>Business Development Plan</b>	No	-	No	-	-
<i>Comment:</i>					



	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Have aspects of this been integrated into your mitigation plan?	
				If yes- how? Describe in comments	If no - can it be a mitigation action? If yes, add Mitigation Action #.
<b>Other</b>	Yes	Local	No	Yes	-
<b>Comment:</b>					
<ul style="list-style-type: none"> <li>New Jersey Coastal Coalition Multi-Jurisdictional Program for Public Information, Adopted by City Council on February 6, 2018 and dated October, 2017.</li> <li>The Goals of the PPI are to ensure that those affected by flooding are aware of risks; coordinate municipal efforts to increase flood awareness; inform residents of tools that their local government offers to prevent injury and property damage from flooding; and engage in floodplain management activities that protect and bolster economic activity.</li> </ul>					
<b>Response/Recovery Planning</b>					
<b>Comprehensive Emergency Management Plan (CEMP) / Emergency Operations Plan (EOP)</b>	Yes	State, County & Local	Yes	Yes	-
<b>Comment:</b>					
<ul style="list-style-type: none"> <li>Each county and municipality in the State shall prepare a written Emergency Operations Plan with all appropriate annexes necessary to implement the plan. Each Emergency Operations Plan shall be adopted no later than one year after the State Emergency Planning Guidelines have been adopted by the State Office of Emergency Management and shall be evaluated at such subsequent scheduled review of the State Emergency Operations Plan. L.1989, c.222, s.19.</li> <li>City of North Wildwood, EOP Base Plan, dated February, 2017. The City of North Wildwood has prepared this Emergency Operations Plan, which sets forth the general policies and procedures to be carried out by county and allied entities using NIMS and the principles of ICS, in order to provide the citizens of City of North Wildwood with an effective integrated emergency response plan designed to minimize the loss of life and property during an emergency, starting by Identifying major, natural and man-made hazards that threaten life, property, and the environment, and providing an efficient, comprehensive organizational structure for emergency response.</li> </ul>					
<b>Threat &amp; Hazard Identification &amp; Risk Assessment (THIRA)</b>	Yes	Local	No	Yes	-
<b>Comment:</b>					
<ul style="list-style-type: none"> <li>City of North Wildwood Coastal Vulnerability Assessment Matrix. The Matrix identifies over 30 Community Assets and include the level of exposure, sensitivity and consequences of a Severe Weather event.</li> </ul>					
<b>Post-Disaster Recovery Plan</b>	Yes	Local	No	Yes	-
<b>Comment:</b> The City's Post-Disaster Recovery Plan refers to the Hazard Mitigation Plan and includes specific mitigation projects and activities.					
<b>Continuity of Operations Plan</b>	No	-	No	-	-
<b>Comment:</b>					
<b>Public Health Plan</b>	No	-	No	-	-
<b>Comment:</b>					
<b>Other</b>	No	-	No	-	-
<b>Comment:</b>					

Table 9.8-4. Development and Permitting Capability

Criterion	Response
Does your jurisdiction issue development permits? - If no, who does? If yes, which department?	Yes – Construction Office
Does your jurisdiction have the ability to track permits by hazard area?	Yes – within Zoning District
Does your jurisdiction have a buildable lands inventory? -If yes, please describe briefly. -If no, please quantitatively describe the level of build-out in the jurisdiction.	Yes – in the Construction software and public records database/tax map

**ADMINISTRATIVE AND TECHNICAL CAPABILITY**





The table below summarizes potential staff and personnel resources available to the City of North Wildwood.

**Table 9.8-5. Administrative and Technical Capabilities**

Staff/Personnel Resource	Available?	Department/Agency/Position
<b>Administrative Capability</b>		
Planning Board	Yes	Planning Board
Mitigation Planning Committee	Yes	Program for Public Information Committee
Environmental Board / Commission	Yes	Environmental Commission and Green Team
Open Space Board / Committee	Yes	Cape May County Open Space Board
Economic Development Commission / Committee	Yes	Economic Development Commission/North Wildwood
Warning Systems / Services (reverse 911, outdoor warning signals)	Yes	Code Red Notification System, Emergency Siren System – Responsible Party is NWOEM
Maintenance program to reduce risk	No	-
Mutual aid agreements	Yes	Several shared service agreements between Wildwood, Wildwood Crest, North Wildwood, as well as with the CMCOEM and MUA
<b>Technical/Staffing Capability</b>		
Planners or engineers with knowledge of land development and land management practices	Yes	Engineering Services for: Capital improvements, special engineer for beach replenishment /beach survey projects and additional engineering services provided for everyone else.
Engineers or professionals trained in building or infrastructure construction practices	Yes	Vannote Harvey and Associates – City Engineer Services
Planners or engineers with an understanding of natural hazards	Yes	Vannote Harvey and Associates – City Engineer Services
Staff with training in benefit/cost analysis	Yes	Ralph Petrella, City Engineer
Staff with training in green infrastructure	Yes	Peter Lomax, Environmental Consultant
Staff with education/knowledge/training in low impact development	Yes	Vannote Harvey and Associates –City Engineer Services
Surveyor	Yes	Vannote Harvey and Associates –City Engineer Services
Stormwater engineer	Yes	Vannote Harvey and Associates – City Engineer Services
Personnel skilled or trained in GIS applications	Yes	In the County and our Tax Assessor, Jason Hesley; as well as Vannote Harvey and Associates –City Engineer Services
Local or state water quality professional	Yes	State Planning Department
Scientist familiar with natural hazards in local area	No	However, the City does have engineering services that specialize in natural hazards and Dr. Stewart Farrell also assists the City
Emergency manager	Yes	Robert Matteucci, Director of OEM
Watershed planner	Yes	Megan Wren, Rick Brown, and State Planning Department
Environmental specialist	Yes	Peter Lomax, City Environmental Consultant
Grant writers	Yes	TRIAD Associates – Grant Coordinator
Resilience Officer	Yes	Jack Heide, FEMA
Other – Professional Consultants	Yes	Dan Ginolfi and Howard Marlowe, Warwick Group Consulting

**FISCAL CAPABILITY**

The table below summarizes financial resources available to the City of North Wildwood.





**Table 9.8-6. Fiscal Capabilities**

Financial Resource	Accessible or Eligible to Use?
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
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
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	No
Clean Water Act 319 Grants (Nonpoint Source Pollution)	No
Other	The City has an open space fund that may be used to fiscally support hazard mitigation projects.

**EDUCATION AND OUTREACH CAPABILITY**

The table below summarizes the education and outreach resources available to the City of North Wildwood.

**Table 9.8-7. Education and Outreach Capabilities**

Criterion	Response
Do you have a public information officer or communications office?	Yes – Ronald Simone, City Administrator
Do you have personnel skilled or trained in website development?	No – Outsource by private contractor for website design (Joyce Media)
Do you have hazard mitigation information available on your website? -If yes, briefly describe.	Yes – ready.northwildwood.com, as well as the flood info page: <a href="https://northwildwood.com/flood-info/">https://northwildwood.com/flood-info/</a>
Do you use social media for hazard mitigation education and outreach? -If yes, briefly describe.	Yes, on City department pages, including the page managed by Office of Emergency Management
Do you have any citizen boards or commissions that address issues related to hazard mitigation? -If yes, briefly describe.	Program for Public Information Committee, Municipal Green Team
Do you have any other programs already in place that could be used to communicate hazard-related information? If yes, briefly describe.	Sustainable Jersey, municipality’s participation in the New Jersey Coastal Coalition

**COMMUNITY CLASSIFICATIONS**

The table below summarizes the classifications for community programs available to the City of North Wildwood.

**Table 9.8-8. Community Classifications**

Program	Participating?	Classification	Date Classified
Community Rating System	Yes	6	May 1, 2017
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	3 for Residential and 2 for Commercial	2018
Public Protection (Fire ISO Protection Class)	Yes	3	2/1/15
Storm Ready Certification	No	-	-
Firewise Community Classification	Yes	N/A	N/A
Sustainable Jersey	Yes	Bronze	December 12, 2017

**ADAPTIVE CAPACITY**





Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2014). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

**Table 9.8-9. Adaptive Capacity**

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low
Climate Change and Sea Level Rise	Strong
Coastal Erosion	Strong
Disease Outbreak (new)	Moderate
Drought (new)	Moderate
Flood	Strong
Hurricane	Strong
Nor’Easter	Strong
Severe Weather	Strong
Severe Winter Weather	Strong
Tsunami	Moderate
Wildfire	Moderate

Notes:

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

*Weak = Capacity does not exist or could use substantial improvement; Unsure = Not enough information is known to assign a rating.*

The City of North Wildwood participated in a Getting to Resiliency exercise to analyze and assess potential risks associated with climate change/sea-level rise. Climate change and sea-level rise is documented and considered within the City’s Comprehensive Master Plan. Climate change is already being integrated into current policies/plans or actions (projects/monitoring) within the Comprehensive Master Plan and Floodplain Management Ordinance.

**NATIONAL FLOOD INSURANCE PROGRAM**

This section provides specific information on the management and regulation of the regulatory floodplain.

**Table 9.8-10. National Flood Insurance Program Compliance**

Criterion	Response
What local department is responsible for floodplain management?	City Engineer
Who is your floodplain administrator? (name, department/position)	Ralph Petrella
Are any certified floodplain managers on staff in your jurisdiction?	Yes, Sal DeSimone
What is the date that your flood damage prevention ordinance was last amended?	October 2017
Does your floodplain management program meet or exceed minimum requirements? -If exceeds, in what ways?	Exceed, the City participates in the Community Rating System
When was the most recent Community Assistance Visit or Community Assistance Contact?	2016
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? -If so, state what they are.	No
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what they are.	No
Do your flood hazard maps adequately address the flood risk within your jurisdiction? -If no, state why.	Yes. No new construction or substantial improvement properties are subject to any recorded major tidal flooding.





Criterion	Response
Does your floodplain management staff need any assistance or training to support its floodplain management program? - If so, what type of assistance/training is needed?	The floodplain administrator is adequately trained for floodplain management responsibilities, although additional training would be welcome.
Does your jurisdiction participate in the Community Rating System (CRS)? -If yes, is your jurisdiction interested in improving its CRS Classification? -If no, is your jurisdiction interested in joining the CRS program?	Yes, Class 6
How many flood insurance policies are in force in your jurisdiction?*	2,483 policies
-What is the insurance in force? -What is the premium in force?	
How many total loss claims have been filed in your jurisdiction?*	3,345 claims
-How many claims are still open or were closed without payment? -What were the total payments for losses?	\$40,614,548 in payments
Do you maintain a list of properties that have been damaged by flooding?	Substantially damaged/RL/SRL Properties – Yes.
Do you maintain a list of property owners interested in flood mitigation?	Yes – any floodplain inquiries, especially those inquiring about FMA.

\*According to FEMA statistics as of October 2020

#### ADDITIONAL AREAS OF EXISTING INTEGRATION

- **Storm-water Management:** The City is an MS4 Regulated Community and has a Storm-water Management Plan. This plan specifies projects/actions/initiatives/ to reduce the volume of storm-water and otherwise mitigate storm-water flooding. The storm-water manager, Department of Public Works, and City Engineer perform Storm-water management in the City. The Mayor and Administrator oversee the performance and relevant materials are submitted for CRS program coordination.
- **Land Use Planning:** The City has a municipal planner on staff who promotes retrofitting, NFIP Flood Damage Prevention Ordinance Compliance and other duties related to municipal planning. The Zoning and Planning Boards were both instrumental in the completion of the Master Plan, which addresses natural hazard risk.
- **Administration:** The City’s PPI Committee members, Mayor, Administrator, Police Chief, Public Works Superintendent, and Deputy OEM Director all have functions related to managing natural hazard risk.
- **Technical Capabilities:** City engineering staff has experience with BCA (Benefit Cost Analysis) when determining what capital projects to consider and pursue to mitigate flooding. The City Construction Official can perform substantial damage estimates, in addition to the City Engineer. OEM staff and contract support (Triad Associates) have experience in preparing grant applications for mitigation projects and continue to do so successfully and efficiently.
- **Training and Education:** City staff receives training and continued professional education that supports natural hazard risk reduction. Staff could benefit from additional training on public information distribution.
- **Sustainable Jersey:** The City is a bronze certified community in the Sustainable Jersey program. The City has earned points toward certification through creating a green team, climate adaptation, emergency communications planning, building healthier communities, smoke and tobacco free public places, natural resource inventory, the City’s Environmental Commission, open space planning, online municipal public service systems, prescription drug safety and disposal, community paper shredding day, and the recycling depot.
- **Climate Adaptation, Flooding Risk:** Members of the Program for Public Information Committee of the City of North Wildwood completed the Getting to Resiliency Study with members of Sustainable Jersey, NJDEP and TCNJ in the Mayor's Office of the City of North Wildwood.



- **Shade Tree:** The City is also a 3-year Tree City USA community and City representatives also attend the Shade Tree Federation Conference on an annual basis.
- **Green Team and Environmental Commission:** The City has an active Green Team and Environmental Commission that work in sync with one another, as likeminded committees to promote environmental projects City-wide.
- **Beaches, Dunes, and Wetlands:** The Construction Office and Emergency Management continue to support the prohibition of development within the beach/dune and coastal wetland open space preservation areas. Planning, Construction Office, and Emergency Management encourage the development of dunes along the City’s beachfront to protect against erosion and storm surge inundation. The City and Stockton College Coastal Research Center continue to monitor and survey the beaches. This provides critical information providing the basis for decisions regarding beach re-nourishment and long-term analysis of littoral processes. The Municipality (engineering) work with NJDOT on any/all future back-bay dredging projects.
- **Elevations:** The City Building Inspector continue to maintain FEMA elevation certificates for all permits for new buildings or improvements to buildings. Emergency Management and Engineering continue to update website with grant opportunities for property elevation. The Municipality (engineering management and engineering) continue to search for more grants for portable dewatering systems.
- **Lightning Protection:** The municipality (engineering) with emergency management and NOAA continue to support the construction and installation of more lightning protection.
- **Floodplain Management and the CRS:** The Municipality PPI Committee continue to implement the initiatives identified in the MJPPI. FEMA, NJDEP, and Municipality North Wildwood seek ways to mitigate flood risk to critical facilities located in special flood hazard areas. The Municipality PPI Committee and ISO include a presentation on retrofitting in the MJPPI initiatives. ISO, FEMA, and Municipality- North Wildwood continue to disseminate flood insurance information courtesy of NFIP and FEMA distribution center. The Construction Office and Emergency Management continue to enforce the City’s Floodplain Ordinance that improvements to a building area on cumulative basis. Once the value of all improvements over time reaches 50% of the original building value, the entire building must be raised to the current BFE.
- **Blue Acres:** NJDEP and Municipality- North Wildwood continue to participate in the Blue Acres Funding program where permissible, as well as FMA for FMA acquisitions.
- **Storm Records:** North Wildwood, OEM, State of New Jersey Police/ OEM continue to document all damages from coastal storms/disasters with the potential for disaster declaration.
- **Impervious Coverage:** North Wildwood and the Parks and Grounds Department continue to enforce Community Forestry and Public Lands Vegetation Management Plans to continue to meet impervious coverage standards. The Planning Board maintain existing zoning regulations to prevent an increase in development densities.

### 9.8.5 Hazard Event History Specific to the Jurisdiction

Cape May County has a history of hazard events, as detailed in Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles in Section 5.4 (Hazard Profiles) and includes a chronology of events that affected Cape May County and its jurisdictions. The City of North Wildwood’s history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Cape May County. Table 9.8-11 provides details regarding municipal-specific loss and damages the City experienced during hazard events. Information provided in the table below is based on reference material or local sources.



**Table 9.8-11. Hazard Event History**

Date(s) of Event	Event Type (disaster declaration if applicable)	Cape May County Designated?	Summary of Event	Summary of Local Damages and Losses
January, 2016	Winter Storm Jonas – DR4264	Yes	Major Tidal Flooding/Erosion	Severe erosion, significant tidal flooding, damage to facilities and equipment.
January 20, 2020 and continuing	EM-3451, DR-4488: COVID-19 Pandemic	Yes	The coronavirus pandemic resulted in the need for shutdowns and social distancing and mask requirements.	The City was subject to masking and social distancing restrictions and business /school closures due to coronavirus.

Source: NOAA NCEI 2020, FEMA 2020

### 9.8.6 Jurisdiction-Specific Vulnerabilities and Hazard Ranking

The hazard profiles in Section 5 (Risk Assessment) provide detailed information regarding each plan participant’s vulnerability to the identified hazards. A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. Refer to Section 5.1 (Methodology) and Section 5.3 (Hazard Ranking) for a detailed summary for the City of North Wildwood risk assessment results and data used to determine the hazard ranking.

#### REPETITIVE FLOOD LOSSES

The table below summarizes the repetitive and severe repetitive flood losses in the City of North Wildwood.

- Number of repetitive loss (RL) properties: 453
- Number of severe repetitive loss (SRL) properties: 95
- Number of RL/SRL properties that have been mitigated: 12 according to FEMA, 27 since 2016 according to the City.

Source: NFIP FEMA Region 2, 2020

Note: The number of SRL properties excludes RL properties.

#### CRITICAL FACILITIES

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

**Table 9.8-12. Potential Flood Losses to Critical Facilities and Lifelines**

Name	Type	Exposure		Notes
		1% Event	0.2% Event	
Oak Ave Pump Station	MUA	X	X	No update. New Pump installed in 2019.
No Name	Communications Facility	X	X	
No Name	Communications Facility	X	X	
No Name	Communications Facility	X	X	
No Name	Communications Facility	X	X	
North Wildwood Recreation Center	Recreation	X	X	Although below BFE, all utilities are above BFE, structure is entirely built of brick, built to withstand the elements in the most major of storms, with a recently updated reserve power system (generator).
North Wildwood Senior and	Health Services	X	X	Within the Recreation







Section 9.8 - City of North Wildwood

Name	Type	Exposure		Notes
		1% Event	0.2% Event	
Nutrition Center				Center. Not a lifeline.
NORTH WILDWOOD FIRE DEPARTMENT	Fire Stations	X	X	Lifeline. Discussions of building a shared public safety building, which would serve as an elevated structure, outside of floodplain area. Temporary maintenance of Fire Department building to mitigate potential future flooding hazards.
MARGARET MACE ELEMENTARY	Education	X	X	Within one of the highest elevation areas in the City, no update on mitigation. Does not operate as a lifeline, but could potentially utilize floodgates or elevate the structure if flooding is catastrophic.
WILDWOOD CATHOLIC HIGH SCHOOL	Education	X	X	Does not operate as a lifeline, but could potentially utilize floodgates or elevate the structure if flooding is catastrophic.
North Wildwood EOC	EOC	X	X	Does not operate as a lifeline. Emergency Radio System will continue to broadcast remotely in the worst of storms. Discussions of building a shared public safety building, which would serve as an elevated structure, outside of floodplain area. No updates at this time.
Hoffman Canal Pump Station	Wastewater Treatment Facilities	X	X	
Oak Ave Pump Station	Wastewater Treatment Facilities	X	X	
North Wild Wood Police Department	Police Stations	X	X	Within one of the highest elevation areas in the City, within the SFHA. No history of flooding; however, prior discussions of a new consolidated public safety building with elevated features.
NORTH WILDWOOD COMMUNITY BUILDING	Polling Places	X	X	
NORTH WILDWOOD EMS	EMS	X	X	Within the Fire Department. Discussions of building a shared public safety building, which would serve as an elevated structure, outside of floodplain area. Temporary





Section 9.8 - City of North Wildwood

Name	Type	Exposure		Notes
		1% Event	0.2% Event	
				maintenance of Fire Department building to mitigate potential future flooding hazards.
North Wildwood Municipal Hall	Municipal Facilities	X	X	Within one of the highest elevations within the SFHA, structure has no history of flooding and is built to withstand the worst of storm. Has a high volume diesel generator as backup power and structure stands above BFE.
NJ MARINE POLICE - North Wildwood Station	Police Stations	X	X	Although below BFE, the building is surrounded by a USACE seawall built to withstand the 500-year storm. Building is owned by the State of New Jersey.
Anglesea Volunteer Fire Co. #1	Fire Stations	X	X	Lifeline that also operates as an emergency evacuation center.
Flood Warning Siren #1	Communications Facility	X	X	Above BFE, siren can be activated remotely.
Flood Warning Siren #2	Communications Facility	X	X	Above BFE, siren can be activated remotely.
Hereford Inlet Lighthouse	County Facilities	X	X	State owned Lighthouse, not a lifeline to the City of North Wildwood, although stands as a lifeline/aids to navigation for all boaters.
Hoffman Canal Pump Station	MUA	X	X	No update. New Pump installed in 2019.
Marina Bay Towers	Senior Facility	X	X	Living spaces stand well above BFE, within a floodprone area. Renovations ongoing. Privately owned.
North Wildwood Beach Patrol HQ	County Facilities	X	X	Lifeline within the SFHA, within a VE Zone.
North Wildwood Boat Ramp & Weather Station/Tide Gauge	Marinas	X	X	Within a floodprone area, weather station and tide gauge work remotely
North Wildwood Public Works Facility & Recycling Center	DPW	X	X	Although below BFE, the building is surrounded by a USACE seawall built to withstand the 500-year storm. No history of flooding at this location.
North Wildwood Volunteer Fire Co. #1	Fire Stations	X	X	
Wawa Gas Station (Only Gas Station in NW)	Natural Gas Facility	X	X	Lifeline above BFE, the only gas station in the municipality
Acme Food-store	Grocery/Food Processing	X	X	Below BFE, serving as a lifeline. Privately owned and mitigation activities unknown. The City of





Name	Type	Exposure		Notes
		1% Event	0.2% Event	
				North Wildwood is exploring an elevated living shoreline to alleviate flooding at this location, as well as potentially installing a flood pump connected into the storm drainage system.
CVS Pharmacy	Health Services	X	X	Below BFE, serving as a lifeline. Privately owned and mitigation activities unknown. The City of North Wildwood is exploring an elevated living shoreline to alleviate flooding at this location, as well as potentially installing a flood pump connected into the storm drainage system.

Source: FEMA DFIRM 2014/2017; Cape May County 2020, City Administrator  
 Note: All Critical Facilities were listed, documented and revised from the HMP 2016  
 \*Identified lifeline

**IDENTIFIED ISSUES**

The jurisdiction has identified the following vulnerabilities within their community:

- The City has 453 remaining unmitigated repetitive loss properties and 95 severe repetitive loss properties. All pre-FIRM properties West of New Jersey Avenue. The City has been adamantly applying for RL/SRL properties through the FMA grant program and has been quite successful in doing so. HMGP and REM were two pre-existing grants that helped to elevate some RL/SRL properties. In the City’s CRS submission, 6 RL properties were listed as substantial improvements. In total, there have been over 14 substantial improvements for RL/SRL properties within the past two years.
- Oceanfront erosion has caused damage to the beach, dune, and wetlands areas. Continued erosion could threaten homes and infrastructure behind the dune line.
- Flooding is a repetitive issue in the New Jersey Avenue area.
- Erosion to beach, dune and wetlands areas. The City has spent over \$16 million for shore protection efforts since 2016.
- Nuisance tidal flooding produced by the back-bay is a recurring problem. Restoration of natural wetlands and shoreline is also needed.
- Nuisance tidal flooding produced by the back-bay is slow to drain on outgoing tides.
- Nuisance tidal flooding produced by the back-bay can occasionally catch residents and visitors off guard, resulting in car damages.
- The City has numerous facilities spread throughout the City and exposed to various levels of flooding such as the North Wildwood Career Fire Department HQ, Anglesea Volunteer Fire Company, 15th Street Volunteer Fire Company, and the North Wildwood Recreation Center.
- Coastal flooding takes place along the bayside. Bulkheads are in place on private and public property though the elevations and standards of bulkheads are not consistent. Failure of bulkheads would increase flood and coastal erosion risk.
- New Jersey Avenue/NJ-147 currently stands as the only evacuation route in and outside of the City of North Wildwood.





- Flooding is a repetitive issue in the Moores Inlet area.
- The City Boat Ramp is located along the bayfront of the City of North Wildwood, presently at an elevation below 8' BFE according to NAVD 88 datum, with no floodgate/mechanism to block water during a rising tidal event.
- The Public Works facility is a critical facility is located outside of floodprone area, above BFE, surrounded by an Army Corps of Engineers seawall built to withstand the 500-year storm. The facility also serves as an evacuation center.
- Traffic signals in the City lack battery backup and shut off during power outages.
- Home buyers may not be aware of the hazards their new homes are exposed to.
- CR-621 is impacted by stormwater flooding.
- The three schools in the City limits (Margaret Mace, Wildwood Catholic Academy, St. Simeons – Wildwood Board of Ed.) could be damaged in storm events.
- The City lacks a Disaster Debris Management Plan to organize post event cleanup.

**HAZARD AREA EXTENT AND LOCATION**

Hazard area extent and location maps were generated for the City of North Wildwood that illustrate the probable areas impacted within the municipality. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps have been generated only for those hazards that can be clearly identified using mapping techniques and technologies and for which the City of North Wildwood has significant exposure. A map of the City of North Wildwood hazard area extent and location is provided on the following page. This map indicates the location of the regulatory floodplain, as well as identified critical facilities within the municipality.

**HAZARD RANKING**

This section includes the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment). The ranking process involves an assessment of the likelihood of occurrence for each hazard; its potential impacts on people, property, and the economy; community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each plan participant may have differing degrees of risk exposure and vulnerability compared to Cape May County as a whole. Therefore, each jurisdiction ranked the degree of risk to each hazard as it pertains to their community factoring in their capabilities to withstand impacts and rebound after the event. The table below summarizes the hazard rankings of potential natural hazards for the City of North Wildwood. The City of North Wildwood has reviewed the Cape May County hazard ranking table and has provided input to its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard ranking, the City indicated the following:

- The City agreed with the calculated hazard rankings.

**Table 9.8-13. City of North Wildwood Hazard Ranking Input**

Climate Change and Sea Level Rise	Coastal Erosion	Disease Outbreak	Drought	Flood	Hurricane
High	High	Medium	Medium	High	High
Nor'Easter	Severe Weather	Severe Winter	Tsunami	Wildfire	





Weather				
High	High	High	Medium	Medium

### 9.8.7 Mitigation Strategy and Prioritization

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

#### PAST MITIGATION INITIATIVE STATUS

The following table summarizes the jurisdiction’s progress on their mitigation strategy identified in the 2015 HMP. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and can also be found under ‘Capability Assessment’ presented previously in this annex.

**Table 9.8-14. Status of Previous HMP Mitigation Actions**

2015 Action Number	Action Description	Responsible Party	Status (In Progress, No Progress, Ongoing Capability, or Completed)	Include in the 2021 HMP Update?	
				Check if Yes	Enter 2021 HMP Action #
CNW-1a	Property Mitigation Support – Retrofit: Where appropriate, support retrofitting (e.g. elevation) of structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority.	City (through NFIP Floodplain Administrator)	In Progress	X	2021-North Wildwood-001
CNW-1b	Property Mitigation Support – Acquisition/Relocation: Where appropriate, support acquisition and/or relocation of structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority.	City (through NFIP Floodplain Administrator)	In Progress	X	2021-North Wildwood-001
CNW-2	Continue active participation in incentive-based program CRS and obtain a higher class during next recertification.	City (through NFIP Floodplain Administrator)	Ongoing Capability		
CNW-3	Continually implement, monitor and maintain the hazard mitigation plan and update the plan every five years.	City (through mitigation planning point of contacts)	Ongoing Capability		
CNW-4	Strive to maintain compliance with, and good standing in the National Flood Insurance program (NFIP) and CRS, through enforcement and adoption of the most up to date FIRMs	Municipality (through NFIP Floodplain Administrator)	Ongoing Capability		
CNW-5	Continue to develop, enhance, and implement existing	Municipal Emergency	Ongoing Capability		



2015 Action Number	Action Description	Responsible Party	Status (In Progress, No Progress, Ongoing Capability, or Completed)	Include in the 2021 HMP Update?	
				Check if Yes	Enter 2021 HMP Action #
	emergency plans, including City participation in County EOP.	Manager with support from County OEM and NJ OEM			
CNW-6	Create/enhance/maintain and continue to implement mutual aid agreements with neighboring communities to promote shared services, decrease expenses and streamline operations	Local Departments	Ongoing Capability		
CNW-7	Support County-wide initiatives identified in Section 9.1 of the County Annex.	Local Departments (as applicable for specific initiative)	Ongoing Capability		
CNW-8	Continue to replace/repair/upgrade bay front storm sewer outfall lines (linear feet of pile, manhole, Tideflex valve, bulkhead repair and/or collar, restoration of disturbed areas), as needed.	Engineering	In Progress	X	2021-North Wildwood-009
CNW-9	Continue to make infrastructure improvements to Spruce Avenue (NJ-147), New Jersey Avenue, only evacuation route out of town	State DOT, Cape May County, and Municipality	In Progress – pump station will alleviate flooding from evacuation route	X	2021-North Wildwood-010
CNW-10	Elevate engine room floors of fire stations at 2nd and New Jersey.	Municipality (engineering with fire department)	No progress – funding constraints	X	
CNW-11	Continue to make upgrades to both fire houses and police dispatch for storm hazard prevention.	Municipality (engineering and emergency management)	In Progress	X	2021-North Wildwood-008
CNW-12	Continue to amend COOP/COG plan for all government operations when/where needed.	Emergency Management with County OEM and Lower Township	Ongoing Capability		
CNW-13	Continue to make improvements that will reduce flood risk from Central Avenue to Delaware Avenue and floodprone areas along and West of New Jersey/Spruce Avenues	Construction Office, Engineering and DPW	In Progress	X	2021-North Wildwood-005
CNW-14	Continue to upgrade and tie-in stormwater pump station at Pine and New York Avenue.	Construction Office, Engineering and DPW	In Progress	X	2021-North Wildwood-006
CNW-15	Continue providing educational materials, and advising and assisting property owners on retrofitting existing buildings through the City Construction Office. Update this material in conjunction with FEMA distribution office.	Construction Office, Emergency Management	Ongoing Capability		
CNW-16	Continue to enforce the City's Floodplain Ordinance requiring	Construction Office,	Ongoing Capability		



2015 Action Number	Action Description	Responsible Party	Status (In Progress, No Progress, Ongoing Capability, or Completed)	Include in the 2021 HMP Update?	
				Check if Yes	Enter 2021 HMP Action #
	all buildings substantially damaged be elevated to BFE +2' Freeboard.	Emergency Management			
CNW-17	Continue to enforce the City's Floodplain Ordinance that improvements to a building area on cumulative basis. Once the value of all improvements over time reaches 50% of the original building value, the entire building must be raised to the current BFE.	Construction Office, Emergency Management	Ongoing Capability		
CNW-18	Implement / continue the City's public outreach efforts to inform residents and visitors about flood damage and protection, and hazard awareness.	Construction Office, Emergency Management	Ongoing Capability		
CNW-19	Continue to support the prohibition of development within the beach/dune and coastal wetland open space preservation areas.	Construction Office, Emergency Management	Ongoing Capability		
CNW-20	Encourage the development of dunes along the City's beachfront to protect against erosion and storm surge inundation	Planning, Construction Office, Emergency Management	Ongoing Capability		
CNW-21	Maintain existing zoning regulations to prevent an increase in development densities.	Planning Board	Ongoing Capability		
CNW-22	The Building Inspector will continue to maintain FEMA elevation certificates for all permits for new buildings or improvements to buildings.	City Building Inspector	Ongoing Capability – City even uploads all ECs onto the City's website		
CNW-23	Continue to update website with grant opportunities for property elevation.	Emergency Management, Engineering	Ongoing Capability – City annually applies for properties to elevate their structures via FMA program (Over 10 structures elevated via FMA since 2016)		
CNW-24	Prepare a priority list for bulkhead upgrades, including private bulkheads through surveying.	Municipality (engineering and DPW)	In progress – City has been diligent in replacing public bulkheads, but the City is currently undertaking a private bulkhead survey to determine what properties may need upgrades.	X	2021-North Wildwood-009
CNW-25	Work with USACE on future mitigation projects, including Shore Protection Project.	USACE, Municipality (engineering and DPW)	In Progress – City anxiously waiting for Hereford Inlet to Cape May Inlet Shore Protection Project	X	2021-North Wildwood-004
CNW-26	Work with County to upgrade stormwater drainage along CR-621 and arterials	County Engineering and municipality (engineering and	In Progress	X	2021-North Wildwood-016



Section 9.8 - City of North Wildwood

2015 Action Number	Action Description	Responsible Party	Status (In Progress, No Progress, Ongoing Capability, or Completed)	Include in the 2021 HMP Update?	
				Check if Yes	Enter 2021 HMP Action #
CNW-27	Develop a project timeline to upgrade DPW that are extremely vulnerable to most any storm events	Municipality (engineering)	In Progress – City is developing a plan to upgrade DPW facilities; however, not the most floodprone of all City facilities.	X	2021-North Wildwood-013
CNW-28	Retrofit schools for coastal storms and other Severe Weather (e.g. wind resistant glazing or storm shutters, redundant utilities)	Municipality (engineering)	In Progress – three schools in the City limits (Margaret Mace, Wildwood Catholic Academy, St. Simeons – Wildwood Board of Ed.)	X	2021-North Wildwood-017
CNW-29	Replace/upgrade manhole covers for sanitary system to reduce stormwater inflow that overtaxes sanitary system	Municipality (engineering)	Completed		
CNW-30	Continue to monitor and survey the beaches. This provides critical information providing the basis for decisions regarding beach re-nourishment and long-term analysis of littoral processes.	City and Stockton College Coastal Research Center	Ongoing Capability		
CNW-31	Determine design strength of light poles at Bill Henfey Park, address deficiencies as necessary and seek funding for self-sustaining lights.	Municipality (engineering)	Completed		
CNW-32	Elevate Beach Patrol Building	Municipality (engineering)	No progress – issues with CAFRA		
CNW-33	Install backup power at traffic lights on critical roadways (e.g. evacuation routes)	Municipality (engineering)	In Progress	X	2021-North Wildwood-014
CNW-34	Install bulkhead along oceanfront beach to protect dune	Municipality (engineering)	In Progress	X	2021-North Wildwood-002
CNW-35	Work with NJDOT on any/all future back-bay dredging projects.	Municipality (engineering)	Ongoing Capability		
CNW-36	Continue to install tide flex valves/emergency sewer repairs at Pine and Anglesea Drive (joint project with State)	Municipality (engineering) with State DOT	Completed		
CNW-37	Continue to search for more grants for portable dewatering systems	Municipality (emergency management and engineering)	Ongoing Capability		
CNW-38	Continue to support the construction and installation of more lightning protection.	Municipality (engineering) with emergency management and NOAA	Ongoing Capability		
CNW-39	Continue to implement the initiatives identified in the MJPP.	Municipality – PPI Committee	Ongoing Capability		
CNW-40	Seek ways to mitigate flood risk to critical facilities located in special flood hazard areas.	FEMA, NJDEP, Municipality – North Wildwood	Ongoing Capability		
CNW-	Include a presentation on	PPI Committee –	Ongoing Capability		







2015 Action Number	Action Description	Responsible Party	Status (In Progress, No Progress, Ongoing Capability, or Completed)	Include in the 2021 HMP Update?	
				Check if Yes	Enter 2021 HMP Action #
41	retrofitting in the MJPII initiatives.	Municipality, ISO			
CNW-42	Continue to participate in the Blue Acres Funding program where permissible, as well as FMA for FMA acquisitions.	NJDEP, Municipality – North Wildwood	Ongoing Capability		
CNW-43	Continue to amend floodplain ordinances in accordance with changes in FEMA requirements.	FEMA, ISO, Municipality – North Wildwood	Ongoing Capability – City adopted floodplain management ordinance in 2017 to adopt the most recently approved FIRM.		
CNW-44	Continue to disseminate flood insurance information courtesy of NFIP and FEMA distribution center.	ISO, FEMA and Municipality – North Wildwood	Ongoing Capability – annual PPI initiative.		
CNW-45	Continue city’s support of the “Draft Feasibility Study” prepared by NJDEP and U.S. Army Corp of Engineers (in reference to initiative NW-24.	Army Corp., NJDEP, Municipality – North Wildwood	Completed – City expressed approval in feasibility study; however, material is insufficient to the damage the beach has and is experiencing.		
CNW - 46	Continue to document all damages from coastal storms/disasters with the potential for disaster declaration	Municipality – North Wildwood OEM, State of New Jersey Police/OEM	Ongoing Capability		
CNW – 47	Consider Real Estate disclosure of flood and other hazards could become an Ordinance Requirement for transfers of title and/or a written policy for disclosing a property’s Flood information	Municipality – North Wildwood	No Progress	X	2021-North Wildwood-015
CNW – 48	Continue to enforce Community Forestry and Public Lands Vegetation Management Plans to continue to meet impervious coverage standards	Municipality – North Wildwood, Parks and Grounds Dept.	Ongoing Capability		
CNW – 49	Continue to implement and enforce Land Use standards incorporated within the Comprehensive Master Plan	Municipality – North Wildwood, Construction and Zoning	Ongoing Capability		

In addition to the above progress, the City of North Wildwood identified the following mitigation projects/activities that were completed but not identified in the 2015 HMP mitigation strategy:

- The City has spent over \$16 million for shore protection efforts since 2016.

**PROPOSED HAZARD MITIGATION INITIATIVES FOR THE PLAN UPDATE**

The City of North Wildwood participated in a risk assessment workshop in September 2020 in which detailed information was provided about assets exposed and vulnerable to the identified hazards of concern. The City of North Wildwood participated in a mitigation action workshop in October 2020 and was provided a Mitigation Toolbox that included a mitigation catalog developed specifically for Cape May County and its hazards of concerns; challenges and opportunities identified during the capability and risk assessments; and the





following FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards: FEMA 551 *Selecting Appropriate Mitigation Measures for Floodprone Structures* (March 2007) and FEMA *Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards* (January 2013). Section 6 (Mitigation Strategy) and Appendix F (Mitigation Strategy Supplement) provide a more complete description of the Mitigation Toolbox and its resources.

Table 9.8-15 summarizes the comprehensive-range of specific mitigation initiatives the City of North Wildwood would like to pursue in the future to reduce the effects of hazards. Some of these initiatives might be previous actions carried forward for this HMP update. Initiatives are dependent upon available funding (grants and local match availability) and can be modified or omitted at any time based on the occurrence of new hazard events and changes in municipal priorities. Both the 4 FEMA mitigation action categories and the 6 CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6 (Mitigation Strategy), 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing actions as *High*, *Medium*, or *Low*. The table below summarizes the evaluation of each mitigation initiative, listed by action number.

Table 9.8-16 provides a summary of the prioritization of all proposed mitigation initiatives for this HMP update.



Table 9.8-15. Proposed Hazard Mitigation Initiatives

Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution	New or Existing Assets?	Hazard(s) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
2021-North Wildwood-001	Repetitive Loss Mitigation	<p><b>Problem:</b> The City has 453 remaining unmitigated repetitive loss properties and 95 severe repetitive loss properties. All pre-FIRM properties West of New Jersey Avenue. The City has been adamantly applying for RL/SRL properties through the FMA grant program and has been quite successful in doing so. HMGP and REM were two pre-existing grants that helped to elevate some RL/SRL properties. In the City's CRS submission, 6 RL properties were listed as substantial improvements. In total, there have been over 14 substantial improvements for RL/SRL properties within the past two years.</p> <p><b>Solution:</b> Conduct outreach to flood-prone property owners, including RL/SRL property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving/elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas).</p>	Existing	Flood, Severe Weather	1	NFIP Floodplain Administrator, supported by homeowners	FEMA HMGP and FMA, local cost share by residents	Eliminates flood damage to homes and residents, creates open space for the municipality increasing flood storage.	\$55M	3 years	High	SIP	PP
2021-North Wildwood-002	Oceanfront Bulkhead/ Seawall Extension	<p><b>Problem:</b> Oceanfront erosion has caused damage to the beach, dune, and wetlands areas. Continued erosion could threaten homes and infrastructure behind the dune line.</p> <p><b>Solution:</b> The City received a \$6.75 million grant from NJDEP to extend the seawall from 3rd – 5th Avenue. The City temporarily installed an emergency bulkhead to protect adjacent critical infrastructure from 3rd – 12th Avenue, and is presently working on a CAFRA permit to extend that bulkhead to 25th</p>	Existing	Flood, Coastal Erosion	1	NJDEP, City Administration	NJ DEP, HMGP, BRIC, City budget	Protection of homes and infrastructure from erosion damage	High	3 years	High	SIP	SP





Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution	New or Existing Assets?	Hazard(s) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
		Avenue, in anticipation and due to delays of the Army Corps/NJDEP Hereford Inlet to Cape May Inlet Shore Protection project to renourish the City’s beach and stabilize the dune system.											
2021-North Wildwood -003	New Jersey Avenue Pump Station	<b>Problem:</b> Flooding is a repetitive issue in the New Jersey Avenue area. <b>Solution:</b> The City will install a pump station at New Jersey Avenue. The project will be going out to bid by the end of the year, with project completion anticipated by Fall, 2022. The pump station will be protected to the 500-year flood level and will have a backup power generator	New	Flood, Severe Weather	1	Engineer	HMGP, BRIC, City budget	Reduction in flood risk	\$3M	2 years	High	SIP	SP
2021-North Wildwood -004	Hereford Inlet to Cape May Inlet Shore Protection Project – USACE/NJDEP	<b>Problem:</b> Erosion to beach, dune and wetlands areas. The City has spent over \$16 million for shore protection efforts since 2016. <b>Solution:</b> According to Stockton Coastal Research, there is presently over 10 – 20 million cubic yards of material within the Hereford Inlet borrow zone. Through partnership with Stone Harbor and Avalon, it is the City’s intent to apply for a CAFRA IP to pursue the harvesting of that material to place upon beaches. The City will then work to restore the dune system.	N/A	Coastal Erosion	1, 5	USACE, NJ DEP, City Administration, Stone Harbor, Avalon	USACE, NJDEP, City budget	Nourishment of beaches and dunes.	High	Within 5 years	High	NSP	NR
2021-North Wildwood -005	Bayside Living Shoreline	<b>Problem:</b> Nuisance tidal flooding produced by the back-bay is a recurring problem. Restoration of natural wetlands and shoreline is also needed. <b>Solution:</b> The City will construct a Bayside Living Shoreline in order to supplement mitigation efforts within most floodprone areas – the City is researching grant opportunities, but the determination of elevation at these locations will be represented in the Citywide bulkhead survey.	Both	Coastal Erosion, Flood, Severe Weather	1, 5	USACE, NJ DEP, Engineer	USACE, NJDEP, Partners for Fish and Wildlife City budget	Reduction in flood and coastal erosion, restoration of ecosystem services	High	Within 5 years	High	NSP	NR
2021-North	Bayside Pump-Station	<b>Problem:</b> Nuisance tidal flooding produced by the back-bay is slow to drain	New	Flood, Severe	1	Engineer	HMGP, BRIC, City	Reduction in	\$3M	2 years	High	SIP	SP





Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution	New or Existing Assets?	Hazard(s) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
Wildwood-006		on outgoing tides. <b>Solution:</b> The City will explore the addition of a bayfront pump to decrease flooding within the City's most floodprone area. If feasible, the City will install a pump station. The pump station will be protected to the 500-year flood level and will have a backup power generator.		Weather			budget	flood risk		ars			
2021-North Wildwood-007	Back-bay Flood Warning Signage	<b>Problem:</b> Nuisance tidal flooding produced by the back-bay can occasionally catch residents and visitors off guard, resulting in car damages. <b>Solution:</b> The City will install back-bay flood warning signs in areas with high back bay flooding risk.	Both	Flood, Severe Weather	2	OEM	City budget	Better flood awareness in high risk areas	Low	2 years	High	EAP	PI
2021-North Wildwood-008	Relocation and Building of a Consolidated Recreation/Public Safety Facility	<b>Problem:</b> The City has numerous facilities spread throughout the City and exposed to various levels of flooding such as the North Wildwood Career Fire Department HQ, Anglesea Volunteer Fire Company, 15 <sup>th</sup> Street Volunteer Fire Company, and the North Wildwood Recreation Center. <b>Solution:</b> The City will explore the option of building one consolidated Recreation/Public Safety Facility, designed to the 500-year flood level. If possible, the City will construct the facility.	New	All Hazards	1, 3, 4	Engineer, Administration	FEMA HMGP, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, City Budget	Reduction in flood risk, increasing emergency capability	High	Within 5 years	High	SIP	PP, ES
2021-North Wildwood-009	Bayside Bulkhead/Elevation Survey and Improvements	<b>Problem:</b> Coastal flooding takes place along the bayside. Bulkheads are in place on private and public property though the elevations and standards of bulkheads are not consistent. Failure of bulkheads would increase flood and coastal erosion risk. <b>Solution:</b> The City is currently in the midst of a Citywide bulkhead survey to determine elevations of all public and private bayfront bulkheads. Concluding the survey, the City will be implementing	Existing	Flood, Severe Weather, Coastal Erosion	1	Administration	City budget	Reduction in flood and erosion risk	High	Within 5 years	High	SIP, LPR	SP, PR





Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution	New or Existing Assets?	Hazard(s) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
		higher regulatory standards by ordinance to mitigate bulkheads responsible for the increase in nuisance tidal flooding. Additionally, the City is surveying the elevation of some street-ends where bulkheads may not be permissible due to wetlands/conservation easements – in that case, the City is looking to elevate the area through the creation and implementation of a living shoreline (2021-North Wildwood-005). An additional portion of the work on public bulkheads will include the replacement/repair/upgrade of bay front storm sewer outfall lines (linear feet of pile, manhole, Tideflex valve, bulkhead repair and/or collar, restoration of disturbed areas) as needed.											
2021-North Wildwood -010	NJ-147	<b>Problem:</b> New Jersey Avenue/NJ-147 currently stands as the only evacuation route in and outside of the City of North Wildwood. <b>Solution:</b> Using CDBG DR funds provided by an NJDEP flood hazard risk resiliency grant, the City is installing a major pump-station to alleviate flooding on the only evacuation route. The project would also include a complete redevelopment of the storm sewer system at this location. The City will work with NJ DEPT to also raise the elevation of NJ147.	Existing	Flood, Severe Weather	1, 4	NJDOT, City Administration	CDBG, NJDEP Flood Hazard Risk Resiliency Grant, City budget	Reduction of flood risk on evacuation route	High	Within 5 years	High	SIP	PP, SP
2021-North Wildwood -011	Moore's Inlet Pump-station Project	<b>Problem:</b> Flooding is a repetitive issue in the Moore's Inlet area. <b>Solution:</b> The City will install a pump station at Moore's Inlet. The pump station will be protected to the 500-year flood level and will have a backup power generator on site.	New	Flood, Severe Weather	1	Engineer	HMGP, BRIC, City budget	Reduction in flood risk	\$3M	2 years	High	SIP	SP
2021-North Wildwood -012	Elevation of 5 <sup>th</sup> Avenue Boat-Ramp	<b>Problem:</b> The City Boat Ramp is located along the bayfront of the City of North Wildwood, presently at an elevation below 8' BFE according to NAVD 88	Existing	Flood, Severe Weather	1	Engineer	EMPG, City budget	All bayside properties	\$7 million	Within 5 years	High	SIP	PP





Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution	New or Existing Assets?	Hazard(s) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
		datum, with no floodgate/mechanism to block water during a rising tidal event. <b>Solution:</b> Elevate the boat ramp above BFE, reconstruct the bulkhead adjacent to the boat ramp. A temporary fix would be the installation of flood gates to be installed prior to any and every major tidal event.								ars			
2021-North Wildwood -013	Reconstruction of Public Works Facility (DPW)	<b>Problem:</b> The Public Works facility is a critical facility is located outside of floodprone area, above BFE, surrounded by an Army Corps of Engineers seawall built to withstand the 500-year storm. The facility also serves as an evacuation center. <b>Solution:</b> The City will install flood gates at the facility.	Existing	Flood, Severe Weather	3	Public Works	FEMA HMGP, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, City Budget	Public Works facility protected from flooding	\$200,000	Within 5 years	High	SIP	PP
2021-North Wildwood -014	Backup Power for Traffic Lights	<b>Problem:</b> Traffic signals in the City lack battery backup and shut off during power outages. <b>Solution:</b> The City will purchase and install battery backup systems for traffic lights.	Existing	Severe Weather, Severe Winter Weather, Hurricane, Nor'Easter	3, 4	Engineer, Public Works	HMGP, BRIC, City budget	Preserves function of traffic signals during power outages	\$4,000 per battery backup	Within 5 years	High	SIP	ES
2021-North Wildwood -015	Real Estate Disclosure	<b>Problem:</b> Home buyers may not be aware of the hazards their new homes are exposed to. <b>Solution:</b> The City will consider Real Estate disclosure of flood and other hazards could become an Ordinance Requirement for transfers of title and/or a written policy for disclosing a property's Flood information.	Existing	All Hazards	2	Administration	City budget	Increased outreach to and protection for homeowners	Staff time	Within 1 year	High	EAP	PI





Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution	New or Existing Assets?	Hazard(s) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
2021-North Wildwood -016	CR-621 Stormwater Improvements	<b>Problem:</b> CR-621 is impacted by stormwater flooding.	Existing	Flood, Severe Weather	1	County, City administration supporting	County budget, City budget	Increased cooperation on stormwater issues	Staff time	Within 5 years	High	SIP	SP
		<b>Solution:</b> The City will work with the County to design and implement upgrades stormwater drainage along CR-621 and arterials.											
2021-North Wildwood -017	Retrofit Schools	<b>Problem:</b> The three schools in the City limits (Margaret Mace, Wildwood Catholic Academy, St. Simeons – Wildwood Board of Ed.) could be damaged in storm events.	Existing	Severe Weather, Severe Winter Weather, Hurricane, Nor' Easter	2	OEM, School boards	City budget	Schools better informed on potential mitigation measures	OEM staff time	Within 6 months	High	EAP	PI
		<b>Solution:</b> OEM will provide guidance on potential mitigation measures that could be implemented such as wind resistant glazing or storm shutters, redundant utilities, etc.											
2021-North Wildwood -018	Disaster Debris Management Plan	<b>Problem:</b> The City lacks a Disaster Debris Management Plan to organize post event cleanup.	Existing	All Hazards	3, 4	OEM, Public Works, Administration	City budget	Disaster response capabilities increased	Low	Within 1 year	High	LPR	ES
		<b>Solution:</b> The City will prepare and adopt a Disaster Debris Management Plan											

Notes:

Acronyms and Abbreviations:

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

Potential FEMA HMA Funding Sources:

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

Timeline:

The time required for completion of the project upon implementation

Cost:

The estimated cost for implementation.

Benefits:

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

Mitigation Category:

- Local Plans and Regulations (LPR) – These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.







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

*CRS Category:*

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



Table 9.8-16. Summary of Prioritization of Actions

Initiative Number	Mitigation Initiative Name	Life Safety	Property Protection	Cost Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
2021-North Wildwood-001	Repetitive Loss Mitigation	1	1	1	1	1	1	0	1	0	0	1	0	1	1	10	High ⚠
2021-North Wildwood-002	Oceanfront Bulkhead/ Seawall Extension	0	1	0	1	1	0	0	0	1	1	1	0	1	1	9	High
2021-North Wildwood-003	New Jersey Avenue Pump Station	0	1	1	1	0	1	0	1	1	1	1	1	1	1	11	High
2021-North Wildwood-004	Hereford Inlet to Cape May Inlet Shore Protection Project – USACE/NJDEP	0	1	1	1	1	0	0	0	1	1	1	0	1	1	9	High
2021-North Wildwood-005	Bayside Living Shoreline	0	1	1	1	0	0	0	1	1	1	1	0	1	1	9	High
2021-North Wildwood-006	Bayside Pump-Station	0	1	1	1	0	1	0	1	1	1	1	1	1	1	11	High
2021-North Wildwood-007	Back-bay Flood Warning Signage	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2021-North Wildwood-008	Relocation and Building of a consolidated Recreation/Public Safety Facility	1	1	0	1	1	1	0	1	1	1	1	0	1	1	11	High
2021-North Wildwood-009	Bayside Bulkhead/Elevation Survey and Improvements	0	1	1	1	1	0	1	1	1	1	0	0	1	1	10	High
2021-North Wildwood-010	NJ-147	1	1	1	1	1	0	0	1	1	1	1	0	1	1	11	High
2021-North Wildwood-011	Moore's Inlet Pump Station	0	1	1	1	0	1	0	1	1	1	1	1	1	1	11	High
2021-North Wildwood-012	Elevation of 5 <sup>th</sup> Avenue Boat-Ramp	0	1	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2021-North Wildwood-013	Reconstruction of Public Works Facility (DPW)	1	1	0	1	1	1	0	1	1	1	1	0	1	1	11	High





Initiative Number	Mitigation Initiative Name	Life Safety	Property Protection	Cost Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
2021-North Wildwood-014	Backup Power for Traffic Lights	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2021-North Wildwood-015	Real Estate Disclosure	0	1	1	1	1	1	1	1	1	1	1	1	1	1	13	High
2021-North Wildwood-016	CR-621 Stormwater Improvements	1	1	1	1	1	0	0	1	1	1	1	0	1	1	11	High
2021-North Wildwood-017	Retrofit Schools	1	1	1	1	1	0	1	1	1	1	1	1	1	1	13	High
2021-North Wildwood-018	Disaster Debris Management Plan	0	1	1	1	1	1	1	1	1	1	1	1	1	1	13	High

Notes: Section 6 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



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



Table 9.8-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	Prevention	Property Protection	Public Education and Awareness	Natural Resource Protection	Emergency Services	Structural Projects	Climate Resilient	Community Capacity Building
Climate Change and Sea Level Rise		X	X		X			X
Coastal Erosion	X	X	X	X	X	X		X
Disease Outbreak (new)		X	X		X			X
Drought (new)		X	X		X			X
Flood	X	X	X	X	X	X	X	X
Hurricane		X	X		X			X
Nor'Easter		X	X		X			X
Severe Weather	X	X	X	X	X	X	X	X
Severe Winter Weather		X	X		X			X
Tsunami		X	X		X			X
Wildfire		X	X		X			X

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

**RED** high ranked hazard

**ORANGE** medium ranked hazard

**YELLOW** low ranked hazard



Figure 9.8-1. City of North Wildwood Hazard Area Extent and Location Map 1

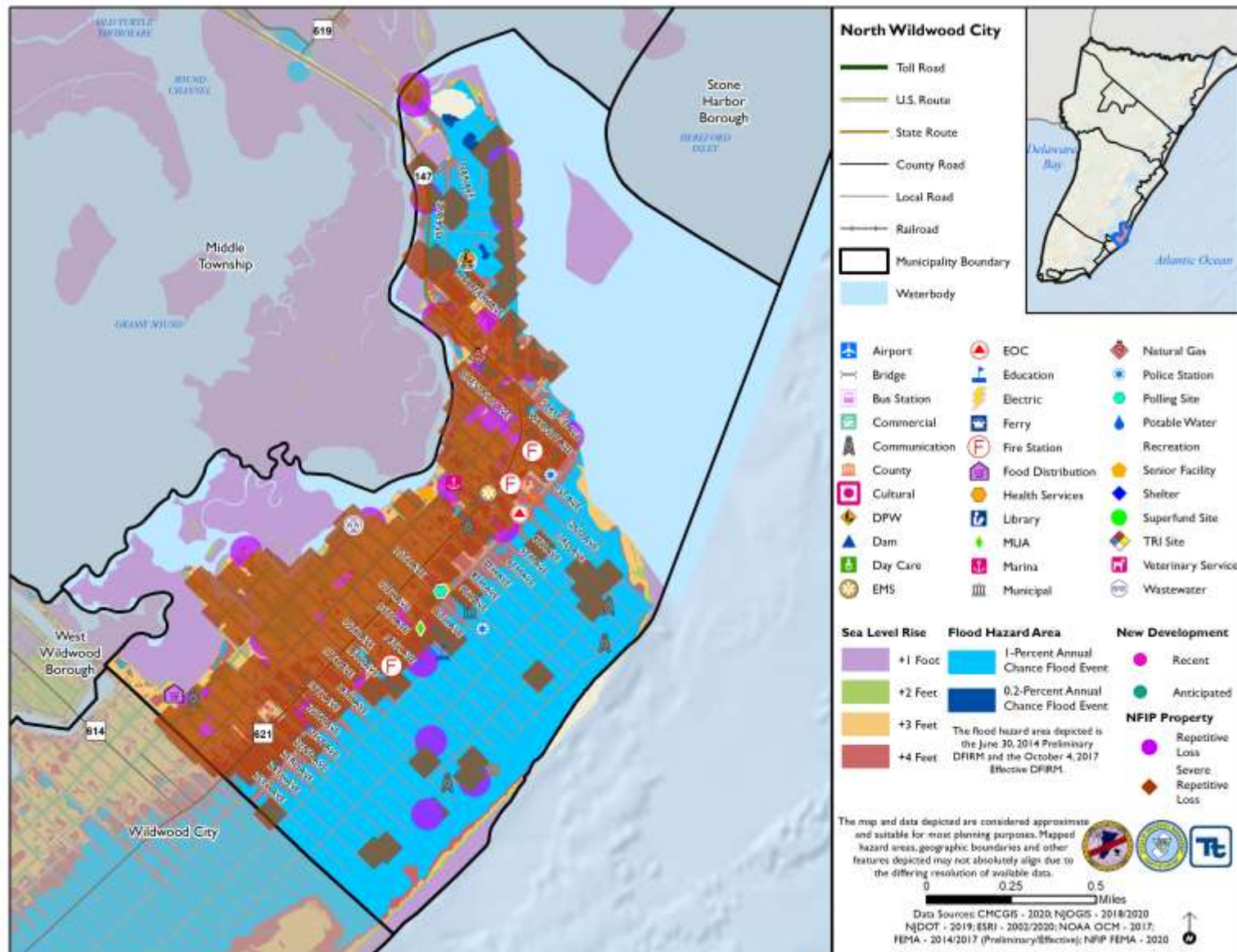




Figure 9.8-2. City of North Wildwood Hazard Area Extent and Location Map 2

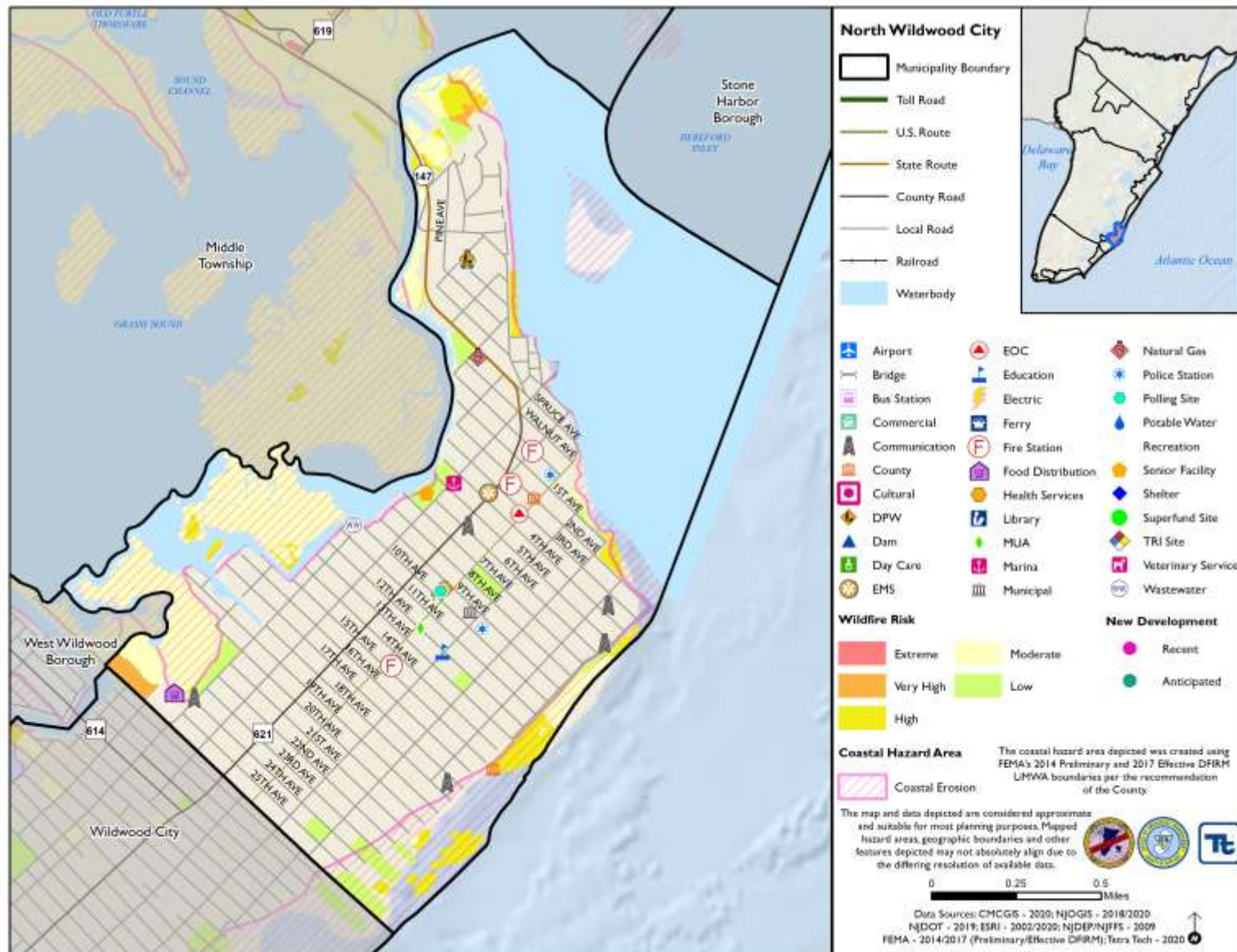
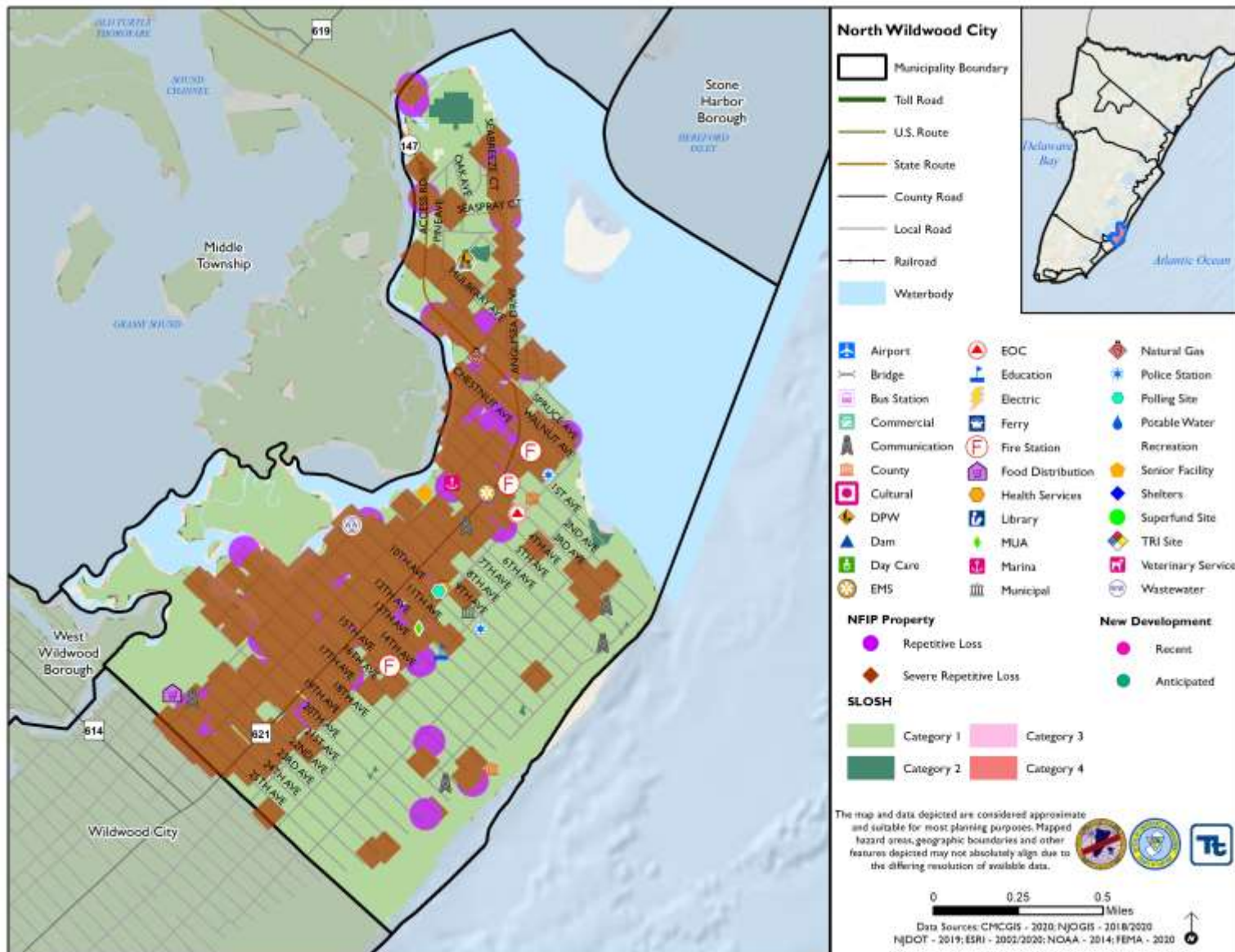




Figure 9.8-3. City of North Wildwood Hazard Area Extent and Location Map 3





Action Worksheet			
<b>Project Name:</b>	Repetitive Loss Mitigation		
<b>Project Number:</b>	2021-North Wildwood-001		
Risk / Vulnerability			
<b>Hazard(s) of Concern:</b>	Flood, Severe Weather		
<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 City has 453 remaining unmitigated repetitive loss properties and 95 severe repetitive loss properties. All pre-FIRM properties West of New Jersey Avenue. The City has been adamantly applying for RL/SRL properties through the FMA grant program and has been quite successful in doing so. HMGP and REM were two pre-existing grants that helped to elevate some RL/SRL properties. In the City's CRS submission, 6 RL properties were listed as substantial improvements. In total, there have been over 14 substantial improvements for RL/SRL properties within the past two years.		
Action or Project Intended for Implementation			
<b>Description of the Solution:</b>	Conduct outreach to 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>Is this project related to a Critical Facility or Lifeline?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
<b>Level of Protection:</b>	1% annual chance flood event + freeboard ( <i>in accordance with flood ordinance</i> )	<b>Estimated Benefits (losses avoided):</b>	Eliminates flood damage to homes and residents, creates open space for the municipality increasing flood storage.
<b>Useful Life:</b>	Acquisition: Lifetime Elevation: 30 years (residential)	<b>Goals Met:</b>	1
<b>Estimated Cost:</b>	\$55Million	<b>Mitigation Action Type:</b>	Structure and Infrastructure Project
Plan for Implementation			
<b>Prioritization:</b>	High	<b>Desired Timeframe for Implementation:</b>	6-12 months
<b>Estimated Time Required for Project Implementation:</b>	Three years	<b>Potential Funding Sources:</b>	FEMA HMGP and FMA, local cost share by residents
<b>Responsible Organization:</b>	NFIP Floodplain Administrator, supported by homeowners	<b>Local Planning Mechanisms to be Used in Implementation if any:</b>	Hazard Mitigation
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Elevate homes	\$500,000	When this area floods, the entire area is impacted; elevating homes would not eliminate the problem and still lead to road closures and impassable roads
Elevate roads	\$500,000	Elevated roadways would not protect the homes from flood damages	
Progress Report (for plan maintenance)			
<b>Date of Status Report:</b>			
<b>Report of Progress:</b>			
<b>Update Evaluation of the Problem and/or Solution:</b>			





Action Worksheet		
<b>Project Name:</b>	Repetitive Loss Mitigation	
<b>Project Number:</b>	2021-North Wildwood-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Families moved out of high-risk flood areas.
Property Protection	1	Properties removed from high-risk flood areas.
Cost-Effectiveness	1	Cost-effective project
Technical	1	Technically feasible project
Political	1	
Legal	1	The City has the legal authority to conduct the project.
Fiscal	0	Project will require grant funding.
Environmental	1	
Social	0	Project would remove families from the flood prone areas of the City.
Administrative	0	
Multi-Hazard	1	Flood, Severe Weather
Timeline	0	
Agency Champion	1	NFIP Floodplain Administrator, supported by homeowners
Other Community Objectives	1	
<b>Total</b>	10	
<b>Priority (High/Med/Low)</b>	High	



Action Worksheet			
<b>Project Name:</b>	Oceanfront Bulkhead/ Seawall Extension		
<b>Project Number:</b>	2021-North Wildwood-002		
Risk / Vulnerability			
<b>Hazard(s) of Concern:</b>	Flood, Coastal Erosion		
<b>Description of the Problem:</b>	Oceanfront erosion has caused damage to the beach, dune, and wetlands areas. Continued erosion could threaten homes and infrastructure behind the dune line.		
Action or Project Intended for Implementation			
<b>Description of the Solution:</b>	The City received a \$6.75 million grant from NJDEP to extend the seawall from 3rd – 5th Avenue. The City temporarily installed an emergency bulkhead to protect adjacent critical infrastructure from 3rd – 12th Avenue, and is presently working on a CAFRA permit to extend that bulkhead to 25th Avenue, in anticipation and due to delays of the Army Corps/NJDEP Hereford Inlet to Cape May Inlet Shore Protection project to renourish the City’s beach and stabilize the dune system.		
<b>Is this project related to a Critical Facility or Lifeline?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
<b>Level of Protection:</b>	Bulkhead extended	<b>Estimated Benefits (losses avoided):</b>	Protection of homes and infrastructure from erosion damage
<b>Useful Life:</b>	50 years	<b>Goals Met:</b>	1
<b>Estimated Cost:</b>	High	<b>Mitigation Action Type:</b>	Structure and Infrastructure Project
Plan for Implementation			
<b>Prioritization:</b>	High	<b>Desired Timeframe for Implementation:</b>	3 years
<b>Estimated Time Required for Project Implementation:</b>	3 years	<b>Potential Funding Sources:</b>	NJ DEP, HMGP, BRIC, City budget
<b>Responsible Organization:</b>	NJDEP, City Administration	<b>Local Planning Mechanisms to be Used in Implementation if any:</b>	Hazard Mitigation
Three Alternatives Considered (including No Action)			
<b>Alternatives:</b>	<b>Action</b>	<b>Estimated Cost</b>	<b>Evaluation</b>
	No Action	\$0	Current problem continues
	Remove dune and install larger seawall	High	Likely to increase erosional rates
	Restore dune alone	\$300,000	Not enough guarantee of safety
Progress Report (for plan maintenance)			
<b>Date of Status Report:</b>			
<b>Report of Progress:</b>			
<b>Update Evaluation of the Problem and/or Solution:</b>			



Action Worksheet		
<b>Project Name:</b>	Oceanfront Bulkhead/ Seawall Extension	
<b>Project Number:</b>	2021-North Wildwood-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	Protects properties from coastal erosion
Cost-Effectiveness	0	
Technical	1	The project is technically feasible
Political	1	
Legal	0	The project requires permitting to complete
Fiscal	0	Project requires funding support
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	1	Flood, Coastal Erosion
Timeline	0	3 years
Agency Champion	1	NJDEP, City Administration
Other Community Objectives	1	
<b>Total</b>	9	
<b>Priority (High/Med/Low)</b>	High	



Action Worksheet			
<b>Project Name:</b>	New Jersey Avenue Pump Station		
<b>Project Number:</b>	2021-North Wildwood-003		
Risk / Vulnerability			
<b>Hazard(s) of Concern:</b>	Flood, Severe Weather		
<b>Description of the Problem:</b>	Flooding is a repetitive issue in the New Jersey Avenue area.		
Action or Project Intended for Implementation			
<b>Description of the Solution:</b>	The City will install a pump station at New Jersey Avenue. The project will be going out to bid by the end of the year, with project completion anticipated by Fall, 2022. The pump station will be protected to the 500-year flood level and will have a backup power generator on site.		
<b>Is this project related to a Critical Facility?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
<b>Level of Protection:</b>	500-year flood level	<b>Estimated Benefits (losses avoided):</b>	Reduction in flood risk
<b>Useful Life:</b>	50 years	<b>Goals Met:</b>	1
<b>Estimated Cost:</b>	\$3 million	<b>Mitigation Action Type:</b>	Structure and Infrastructure Project
Plan for Implementation			
<b>Prioritization:</b>	High	<b>Desired Timeframe for Implementation:</b>	Within 2 years
<b>Estimated Time Required for Project Implementation:</b>	1 year	<b>Potential Funding Sources:</b>	HMGP, BRIC, City budget
<b>Responsible Organization:</b>	Engineer	<b>Local Planning Mechanisms to be Used in Implementation if any:</b>	Hazard mitigation, Stormwater management
Three Alternatives Considered (including No Action)			
<b>Alternatives:</b>	<b>Action</b>	<b>Estimated Cost</b>	<b>Evaluation</b>
	No Action	\$0	Problem continues.
	Raise roadways in the area	\$250,000	Flooding likely to impact property owners
	Elevate homes in the area	\$3 million	Costly and roadways still flood
Progress Report (for plan maintenance)			
<b>Date of Status Report:</b>			
<b>Report of Progress:</b>			
<b>Update Evaluation of the Problem and/or Solution:</b>			



Evaluation and Prioritization		
<b>Project Name:</b>	New Jersey Avenue Pump Station	
<b>Project Number:</b>	2021-North Wildwood-003	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	Project will protect properties in the area from flooding
Cost-Effectiveness	1	
Technical	1	The project is technically feasible
Political	0	
Legal	1	The City is legally able to complete the project
Fiscal	0	Project requires funding support
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Severe Weather, Flood
Timeline	1	2 years
Agency Champion	1	Engineer
Other Community Objectives	1	
<b>Total</b>	11	
<b>Priority (High/Med/Low)</b>	High	



Action Worksheet			
<b>Project Name:</b>	Bayside Pump Station		
<b>Project Number:</b>	2021-North Wildwood-006		
Risk / Vulnerability			
<b>Hazard(s) of Concern:</b>	Flood, Severe Weather		
<b>Description of the Problem:</b>	Nuisance tidal flooding produced by the back-bay is slow to drain on outgoing tides.		
Action or Project Intended for Implementation			
<b>Description of the Solution:</b>	The City will explore the addition of a bayfront pump to decrease flooding within the City's most floodprone area. If feasible, the City will install a pump station. The pump station will be protected to the 500-year flood level and will have a backup power generator.		
<b>Is this project related to a Critical Facility?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
<b>Level of Protection:</b>	500-year flood level	<b>Estimated Benefits (losses avoided):</b>	Reduction in flood risk
<b>Useful Life:</b>	50 years	<b>Goals Met:</b>	1
<b>Estimated Cost:</b>	\$3 million	<b>Mitigation Action Type:</b>	Structure and Infrastructure Project
Plan for Implementation			
<b>Prioritization:</b>	High	<b>Desired Timeframe for Implementation:</b>	Within 2 years
<b>Estimated Time Required for Project Implementation:</b>	1 year	<b>Potential Funding Sources:</b>	HMGP, BRIC, City budget
<b>Responsible Organization:</b>	Engineer	<b>Local Planning Mechanisms to be Used in Implementation if any:</b>	Hazard mitigation, Stormwater management
Three Alternatives Considered (including No Action)			
<b>Alternatives:</b>	<b>Action</b>	<b>Estimated Cost</b>	<b>Evaluation</b>
	No Action	\$0	Problem continues.
	Raise roadways in the area	\$250,000	Flooding likely to impact property owners
	Elevate homes in the area	\$3 million	Costly and roadways still flood
Progress Report (for plan maintenance)			
<b>Date of Status Report:</b>			
<b>Report of Progress:</b>			
<b>Update Evaluation of the Problem and/or Solution:</b>			



Evaluation and Prioritization		
<b>Project Name:</b>	Bayside Pump Station	
<b>Project Number:</b>	2021-North Wildwood-006	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	Project will protect properties in the area from flooding
Cost-Effectiveness	1	
Technical	1	The project is technically feasible
Political	0	
Legal	1	The City is legally able to complete the project
Fiscal	0	Project requires funding support
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Severe Weather, Flood
Timeline	1	2 years
Agency Champion	1	Engineer
Other Community Objectives	1	
<b>Total</b>	11	
<b>Priority (High/Med/Low)</b>	High	



Action Worksheet			
<b>Project Name:</b>	Relocation and Building of a Consolidated Recreation/Public Safety Facility		
<b>Project Number:</b>	2021-North Wildwood-008		
Risk / Vulnerability			
<b>Hazard(s) of Concern:</b>	All Hazards		
<b>Description of the Problem:</b>	The City has numerous facilities spread throughout the City and exposed to various levels of flooding such as the North Wildwood Career Fire Department HQ, Anglesea Volunteer Fire Company, 15th Street Volunteer Fire Company, and the North Wildwood Recreation Center.		
Action or Project Intended for Implementation			
<b>Description of the Solution:</b>	The City will explore the option of building one consolidated Recreation/Public Safety Facility, designed to the 500-year flood level. If possible, the City will construct the facility.		
<b>Is this project related to a Critical Facility?</b>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
<b>Level of Protection:</b>	500-year flood level	<b>Estimated Benefits (losses avoided):</b>	Reduction in flood risk, increasing emergency capability
<b>Useful Life:</b>	50 years	<b>Goals Met:</b>	1, 3, 4
<b>Estimated Cost:</b>	High	<b>Mitigation Action Type:</b>	Structure and Infrastructure Projects (SIP)
Plan for Implementation			
<b>Prioritization:</b>	High	<b>Desired Timeframe for Implementation:</b>	Within 5 years
<b>Estimated Time Required for Project Implementation:</b>	2 years	<b>Potential Funding Sources:</b>	FEMA HMGP, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, City Budget
<b>Responsible Organization:</b>	Engineer, Administration	<b>Local Planning Mechanisms to be Used in Implementation if any:</b>	Hazard Mitigation, Emergency Management
Three Alternatives Considered (including No Action)			
<b>Alternatives:</b>	<b>Action</b>	<b>Estimated Cost</b>	<b>Evaluation</b>
	No Action	\$0	Problem continues.
	Elevate all facilities	High	Costly and not possible for some facilities
	Build levees around facilities	N/A	No space for full levee systems
Progress Report (for plan maintenance)			
<b>Date of Status Report:</b>			
<b>Report of Progress:</b>			
<b>Update Evaluation of the Problem and/or Solution:</b>			





Action Worksheet		
<b>Project Name:</b>	Relocation and Building of a Consolidated Recreation/Public Safety Facility	
<b>Project Number:</b>	2021-North Wildwood-008	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Project will protect critical services of public safety facilities
Property Protection	1	Project will protect public safety facilities from flood damage.
Cost-Effectiveness	0	
Technical	1	
Political	1	
Legal	1	The City has the legal authority to complete the project.
Fiscal	0	Project requires funding support.
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	All Hazards
Timeline	0	Within 5 years
Agency Champion	1	Engineer, Administration
Other Community Objectives	1	Protection of critical services
<b>Total</b>	11	
<b>Priority (High/Med/Low)</b>	High	



Action Worksheet			
<b>Project Name:</b>	Moores Inlet Pump Station		
<b>Project Number:</b>	2021-North Wildwood-011		
Risk / Vulnerability			
<b>Hazard(s) of Concern:</b>	Flood, Severe Weather		
<b>Description of the Problem:</b>	Flooding is a repetitive issue in the Moores Inlet area.		
Action or Project Intended for Implementation			
<b>Description of the Solution:</b>	The City will install a pump station at Moores Inlet. The pump station will be protected to the 500-year flood level and will have a backup power generator on site.		
<b>Is this project related to a Critical Facility?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
<b>Level of Protection:</b>	500-year flood level	<b>Estimated Benefits (losses avoided):</b>	Reduction in flood risk
<b>Useful Life:</b>	50 years	<b>Goals Met:</b>	1
<b>Estimated Cost:</b>	\$3 million	<b>Mitigation Action Type:</b>	Structure and Infrastructure Project
Plan for Implementation			
<b>Prioritization:</b>	High	<b>Desired Timeframe for Implementation:</b>	Within 2 years
<b>Estimated Time Required for Project Implementation:</b>	1 year	<b>Potential Funding Sources:</b>	HMGP, BRIC, City budget
<b>Responsible Organization:</b>	Engineer	<b>Local Planning Mechanisms to be Used in Implementation if any:</b>	Hazard mitigation, Stormwater management
Three Alternatives Considered (including No Action)			
<b>Alternatives:</b>	<b>Action</b>	<b>Estimated Cost</b>	<b>Evaluation</b>
	No Action	\$0	Problem continues.
	Raise roadways in the area	\$250,000	Flooding likely to impact property owners
	Elevate homes in the area	\$3 million	Costly and roadways still flood
Progress Report (for plan maintenance)			
<b>Date of Status Report:</b>			
<b>Report of Progress:</b>			
<b>Update Evaluation of the Problem and/or Solution:</b>			



Evaluation and Prioritization		
<b>Project Name:</b>	Moores Inlet Pump Station	
<b>Project Number:</b>	2021-North Wildwood-011	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	Project will protect properties in the area from flooding
Cost-Effectiveness	1	
Technical	1	The project is technically feasible
Political	0	
Legal	1	The City is legally able to complete the project
Fiscal	0	Project requires funding support
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Severe Weather, Flood
Timeline	1	2 years
Agency Champion	1	Engineer
Other Community Objectives	1	
<b>Total</b>	11	
<b>Priority (High/Med/Low)</b>	High	



Action Worksheet			
<b>Project Name:</b>	Reconstruction of Public Works Facility (DPW)		
<b>Project Number:</b>	2021-North Wildwood-013		
Risk / Vulnerability			
<b>Hazard(s) of Concern:</b>	Flood, Severe Weather		
<b>Description of the Problem:</b>	The Public Works facility is a critical facility is located outside of floodprone area, above BFE, surrounded by an Army Corps of Engineers seawall built to withstand the 500-year storm. The facility also serves as an evacuation center.		
Action or Project Intended for Implementation			
<b>Description of the Solution:</b>	The City will design and install flood gates at the facility.		
<b>Is this project related to a Critical Facility or Lifeline?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
<b>Level of Protection:</b>	TBD by flood wall design	<b>Estimated Benefits (losses avoided):</b>	Public Works facility protected from flooding
<b>Useful Life:</b>	50 years	<b>Goals Met:</b>	3
<b>Estimated Cost:</b>	\$200,000	<b>Mitigation Action Type:</b>	Structure and Infrastructure Projects
Plan for Implementation			
<b>Prioritization:</b>	High	<b>Desired Timeframe for Implementation:</b>	Within 5 years
<b>Estimated Time Required for Project Implementation:</b>	1 year	<b>Potential Funding Sources:</b>	FEMA HMGP, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, City Budget
<b>Responsible Organization:</b>	Public Works	<b>Local Planning Mechanisms to be Used in Implementation if any:</b>	Hazard mitigation planning, Emergency management planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Elevate facility	\$500,000	Costly and may not solve problem
	Relocate facility	N/A	Not possible
Progress Report (for plan maintenance)			
<b>Date of Status Report:</b>			
<b>Report of Progress:</b>			
<b>Update Evaluation of the Problem and/or Solution:</b>			



Action Worksheet		
<b>Project Name:</b>	Reconstruction of Public Works Facility (DPW)	
<b>Project Number:</b>	2021-North Wildwood-013	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Project protects emergency services of Public Works
Property Protection	1	Reduction in flooding risk
Cost-Effectiveness	0	
Technical	1	Technically feasible project
Political	1	
Legal	1	The City has the legal authority to conduct the project.
Fiscal	0	Project will require grant funding.
Environmental	1	
Social	1	Project would reduce flooding impacts.
Administrative	1	
Multi-Hazard	1	Flood, Severe Weather
Timeline	0	
Agency Champion	1	Public Works
Other Community Objectives	1	
<b>Total</b>	11	
<b>Priority (High/Med/Low)</b>	High	



Action Worksheet			
<b>Project Name:</b>	Backup Power for Traffic Lights		
<b>Project Number:</b>	2021-North Wildwood-014		
<b>Risk / Vulnerability</b>			
<b>Hazard(s) of Concern:</b>	Severe Weather, Severe Winter Weather, Hurricane, Nor'Easter		
<b>Description of the Problem:</b>	Traffic signals in the City lack battery backup and shut off during power outages.		
<b>Action or Project Intended for Implementation</b>			
<b>Description of the Solution:</b>	The City will purchase and install battery backup systems for traffic lights.		
<b>Is this project related to a Critical Facility?</b>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
<b>Level of Protection:</b>	N/A	<b>Estimated Benefits (losses avoided):</b>	Preserves function of traffic signals during power outages
<b>Useful Life:</b>	20 years	<b>Goals Met:</b>	3, 4
<b>Estimated Cost:</b>	\$4,000 per battery backup	<b>Mitigation Action Type:</b>	Structure and Infrastructure Projects (SIP)
<b>Plan for Implementation</b>			
<b>Prioritization:</b>	High	<b>Desired Timeframe for Implementation:</b>	Within 5 years
<b>Estimated Time Required for Project Implementation:</b>	1 year	<b>Potential Funding Sources:</b>	FEMA HMGP and BRIC, , Municipal Budget
<b>Responsible Organization:</b>	Engineer, Public Works	<b>Local Planning Mechanisms to be Used in Implementation if any:</b>	Hazard Mitigation, Emergency Management
<b>Three Alternatives Considered (including No Action)</b>			
<b>Alternatives:</b>	<b>Action</b>	<b>Estimated Cost</b>	<b>Evaluation</b>
	No Action	\$0	Problem continues.
	Install solar panels	\$100,000	Weather dependent; need large amount of space for installation; expensive if repairs needed
	Install wind turbines	\$100,000 per turbine	Weather dependent; poses a threat to wildlife; expensive repairs if needed
<b>Progress Report (for plan maintenance)</b>			
<b>Date of Status Report:</b>			
<b>Report of Progress:</b>			
<b>Update Evaluation of the Problem and/or Solution:</b>			



Action Worksheet		
<b>Project Name:</b>	Backup Power for Traffic Lights	
<b>Project Number:</b>	2021-North Wildwood-014	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Preserves function of traffic signals during power outages
Property Protection	1	Project will protect traffic signals from power loss.
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	The City has the legal authority to complete the project.
Fiscal	0	Project requires funding support.
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Severe Weather, Severe Winter Weather, Hurricane, Nor'Easter
Timeline	0	Within 5 years
Agency Champion	1	Engineer, Public Works
Other Community Objectives	1	
<b>Total</b>	12	
<b>Priority (High/Med/Low)</b>	High	