



9.8 City of North Wildwood

This section presents the jurisdictional annex for the City of North Wildwood.

9.8.1 Hazard Mitigation Plan Point of Contact

The following individuals have been identified as the hazard mitigation plan’s primary and alternate points of contact.

Primary Point of Contact	Alternate Point of Contact
Robert Matteucci, Municipal OEM Coordinator 901 Atlantic Avenue North Wildwood, NJ 08260 Phone: (609) 522-0191 Email: rmatteucci@northwildwoodnjoem.org	Ronald Simone, Administrative Assistant 901 Atlantic Avenue North Wildwood, NJ 08260 Phone: (609) 522-2030 ext. 1260 Email: rsimone@northwildwood.com

9.8.2 Municipal Profile

The City of North Wildwood is located along the Atlantic Ocean coastline within the southern portion of Cape May County, New Jersey. It is bounded on the north-northeast by the Township of Middle and the Borough of Stone Harbor, on the east by the Atlantic Ocean, on the south-southwest by the City of Wildwood, Borough Wildwood Crest and the Atlantic Ocean, and the west by the Borough of West Wildwood and the Townships of Lower and Middle. It is part of the Ocean City Metropolitan Statistical Area. North Wildwood is home to the Hereford Inlet Lighthouse.

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 Bureau, the city has a total area of 2.1 square miles, with 1.8 square miles of it land and 0.4 square miles of it (17.9-percent) is water. As of July 1, 2014 there were estimated to be 3,934 people residing in the City.

Growth/Development Trends

The following table summarizes recent residential/commercial development since 2010 to present and any known or anticipated major residential/commercial development and major infrastructure development that has been identified in the next five years within the municipality. Refer to the map in Section 9.8.8 of this annex, which illustrates the hazard areas along with the location of potential new development.

Table 9.8-1. Growth and Development

Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Address	Block / Lot	Known Hazard Zone(s)	Description/Status of Development
Recent Development from 2010 to Present						
Bill Henfey park	Park	0; 1 fieldhouse	E 8th Ave	244/1	Flood - AE	Complete
Allen Park	Redevelopment park	0		111/1	Flood – AE	Complete
Known or Anticipated Development in the Next Five (5) Years						
15 th Ave (Between Central and the beach)	Infrastructure	0			Flood - AE	Pending



Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Address	Block / Lot	Known Hazard Zone(s)	Description/Status of Development
Bike path – 5 th - 15 th	Infrastructure	0	5 th -15 th Ave & JFK Blvd.		Flood - AE	Pending
Ocean front storm sewer between 2 nd Ave and 15 th Ave	Infrastructure	0	2 nd Ave and 15 th Ave		AE	Pending
Ocean Ave between 2 nd and 18 th	Infrastructure Roads and Drainage Improvements	0	2 nd and 18 th Avenues		AE	Pending
Surf Ave between 1 st and 11 th	Infrastructure Roads and Drainage Improvements	0	1 st and 11 th Avenues		AE	Pending
4 th Ave between Ocean and JFK	Infrastructure Roads and Drainage Improvements	0	4 th Ave between Ocean and JFK		AE	Pending
7 th Ave between Surf and JFK	Infrastructure Roads and Drainage Improvements	0	7 th Ave between Surf and JFK		AE	Pending
8 th between Surf and JFK	Infrastructure Roads and Drainage Improvements	0	8 th between Surf and JFK		AE	Pending
12 th between Surf and JFK	Infrastructure Roads and Drainage Improvements	0	12 th between Surf and JFK		AE	Pending
Ocean Front Storm sewer between 16 th and 26 th	Infrastructure	0	Ocean Front Storm sewer between 16 th and 26 th		AE	Pending
15 th Ave between Ocean Ave and the beach	Infrastructure Roads and Drainage Improvements	0	15 th Ave between Ocean Ave and the beach		AE	Pending
Spruce Ave storm sewer between Central and New York	Infrastructure	0	Spruce Ave storm sewer between Central and New York		AE	Pending

* Only location-specific hazard zones or vulnerabilities identified.

9.8.3 Natural Hazard Event History Specific to the Municipality

Cape May County has a history of natural and non-natural hazard events as detailed in Volume I, Section 5.0 of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. For the purpose of this plan update, events that have occurred in the County from 2010 to present were summarized to indicate the range and impact of hazard events in the community. Information regarding specific damages is included, if available, based on reference material or local sources. This information is presented in the table below. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.



Table 9.8-2. Hazard Event History

Date(s) of Event	Event Type	FEMA Declaration # (If Applicable)	County Designated?	Summary of Damages/Losses
February 10, 2008	High Winds	No	N/A	Yes – minor costs and damages.
May 12, 2008	Coastal Flood	No	N/A	Yes – minor to moderate flood damage
November 12-13, 2009	Severe Storms and Flooding associated with Tropical Depression Ida and a Nor'Easter	DR-1867	Yes	Yes – minor to moderate flooding.
February 5-6, 2010	Severe Winter Storm and Snowstorm (blizzard)	DR-1889	Yes	Yes – significant damages to utilities and properties.
February 9-10, 2010	Winter Storm / Blizzard	No	N/A	Yes – significant damages to utilities.
April 02, 2010	Severe Storms and Flooding	Yes	Yes	Yes – moderate flooding damages.
December 26-27, 2010	Severe Winter Storm and Snowstorm	DR-1954	Yes	Yes – minor to moderate flooding and property damage
August 27-28, 2011	Hurricane Irene	DR-4021	Yes	Moderate to major flooding – Damages incurred in the form of minor property damage and significant beach erosion.
October 29, 2011	Severe Storm	DR-4048	Yes	Yes
October 28, 2012	Hurricane Sandy	DR-4086	Yes	Yes – major flooding, property damage and damage to our beach. The City itself exceeded an estimated 3 million in losses.
March 6-7, 2012	Nor'Easter	No	N/A	Yes – moderate flood damage.
March 12, 2014	Strong Winds	No	N/A	Yes – Minor wind and flood damages. Man hours for cleanup.
February 14-15, 2015	High Winds	No	N/A	Yes – Major tidal flooding and minor wind damage.
October 1-4, 2015	Hurricane Joaquin	No	N/A	Yes – Damage to properties and significant damage to our coastal infrastructure, estimated repairs needed to bring back beach to past state exceed over 4million dollars. (Now after Jonas exceed 10 million).

9.8.4 Hazard Vulnerabilities and Ranking

The hazard profiles in Section 5.0 of this plan have detailed information regarding each plan participant’s vulnerability to the identified hazards. The risk ranking methodology is presented in Section 5.3. However, each municipality had the opportunity to adjust the final ranking based on municipal feedback. The following summarizes the hazard vulnerabilities and their ranking in the City of North Wildwood. For additional vulnerability information relevant to this jurisdiction, refer to Section 5.0.

Hazard Risk/Vulnerability Risk Ranking

The table below summarizes the hazard risk/vulnerability rankings of potential hazards for the City of North Wildwood.





Table 9.8-3. Hazard Risk/Vulnerability Risk Ranking

Hazard type	Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard ^{a, c}	Probability of Occurrence	Risk Ranking Score (Probability x Impact)	Hazard Ranking ^b
Climate Change & Sea Level Rise	RCV in +3 feet: \$991,425,468	Frequent	48	High
Coastal Erosion	RCV in CEHA: \$4,417,409	Frequent	18	Medium
Flood	1% Annual Chance: \$3,589,204,861	Frequent	54	High
Hurricanes & Tropical Storms	Category 1 SLOSH: \$3,611,331,916 Category 2 SLOSH: \$3,616,768,618 Category 3 SLOSH: \$3,616,768,618 Category 4 SLOSH: \$3,616,768,618	Frequent	54	High
Nor'Easter	Damage estimate not available	Frequent	48	High
Severe Weather	100-Year MRP: \$26,351,641 500-year MRP: \$26,351,641 Annualized: \$26,351,641	Frequent	48	High
Severe Winter Weather	1% GBS: \$26,351,641 5% GBS: \$26,351,641	Frequent	51	High
Tsunami	Damage estimate not available	Rare	6	Low
Wildfire	Estimated Value Exposed to Extreme, Very High and High: \$26,351,641	Frequent	18	Medium

Notes: GBS = General building stock; MRP = Mean return period.

- a. The general building stock valuation is based on the custom inventory generated for the County utilizing improved value.
- b. High = Total hazard priority risk ranking score of 31 and above
Medium = Total hazard priority risk ranking of 20-30+
Low = Total hazard risk ranking below 20
- c. Refer to Section 5.1 for further details on the loss methodology. Loss estimates for the severe storm and severe winter storm hazards are structural values only and do not include the estimated value of contents. Loss estimates for the flood and earthquake hazards represent both structure and contents. Potential flood loss estimates were generated using Hazus-MH and the 2015 FEMA DFIRM for the 1-percent annual chance event. For the wildfire hazard, the improved value and estimated contents of buildings located within the identified hazard zones is provided.

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the City of North Wildwood.

Table 9.8-4. NFIP Summary

Municipality	# Policies (1)	# Claims (Losses) (1)	Total Loss Payments (2)	# Rep. Loss Prop. (1)	# Severe Rep. Loss Prop. (1)	# Policies in 1% Flood Boundary (3)
North Wildwood City	3,028	2,801	\$34,142,694	81	60	3,020

Source: FEMA, 2015

Note (1) Policies, claims, repetitive loss and severe repetitive loss statistics provided by FEMA and are current as of July 31, 2015 and are summarized by Community Name. Please note the total number of repetitive loss properties excludes the severe repetitive loss properties. The number of claims represents claims closed by 7/31/2015.

Note (2) Total building and content losses from the claims file provided by FEMA Region 2.

Note (3) The policies inside and outside of the flood zones is based on the latitude and longitude provided by FEMA Region 2 in the policy file.

Note (4) FEMA noted that where there is more than one entry for a property, there may be more than one policy in force or more than one GIS possibility.

Note (5) A zero percentage denotes less than 1/100th percentage and not zero damages or vulnerability as may be the case.





Critical Facilities

Table 9.8-5. Number of Critical Facilities Located in the 1-Percent Annual Chance Flood Zone

Municipality	Facility Types																	
	Airport	Communication	County Office	EMS	Emergency Operation Center	Ferry	Fire Station	Library	Marina	Military	Municipal Hall	Place of Interest	Police Station	School	Senior Facility	Wastewater Pump	Wastewater Treatment	Well
North Wildwood City	0	5	1	1	1	0	1	0	4	0	1	1	1	2	1	2	0	0

Source: Cape May County

Note: EMS – Emergency Medical Services

Other Vulnerabilities Identified by Municipality

The City of North Wildwood has identified the following vulnerable areas:

- 26TH AVE Shopping Center – area of flooding
- Beachfront (2nd – 7th Avenues) – area of significant erosion
- Beach Patrol Headquarters – 15th Avenue & the Beach – area vulnerable to flood/wind damage
- 26th Avenue – Pine Avenue (All roads West of New Jersey Avenue) – vulnerable to major back-bay flooding episodes during flood events
- Seaport Pier – Portion in a VE Zone

The New Jersey Beach Profile Network (NJBPN) was authorized by the New Jersey Department of Environmental Protection (NJDEP) and established by the Richard Stockton College Coastal Research Center (CRC) in 1986. The NJBPN monitors (by survey sites) the shoreline conditions along New Jersey's coast. In Cape May County, there are 31 survey sites, with one located in the City of North Wildwood. Each year, the NJBPN completes an annual report for the counties where survey sites are located. The reports provide a summary of beach changes, a review of any major beach restoration or hard structure projects, and a discussion of issues and pending project work in the County. For details regarding the annual reports for Cape May County and its municipalities, please refer to: <http://intraweb.stockton.edu/eys/page.cfm?siteID=149&pageID=9>

9.8.5 Capability Assessment

This section identifies the following capabilities of the local jurisdiction:

- Planning and regulatory capability
- Administrative and technical capability
- Fiscal capability
- Education/Outreach and Community classification
- Self-Assessment of Capability
- National Flood Insurance Program
- Integration of Mitigation Planning into Existing and Future Planning Mechanisms

Planning and Regulatory Capability

The table below summarizes the regulatory tools that are available to the City of North Wildwood.





Table 9.8-6. Planning and Regulatory Tools

Tool/Program (code, ordinance, plan)	Do you have this? (Yes/No)	Authority (local, county, state, federal)	Dept./Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Planning Capability				
Master Plan	Yes	Local, State	Engineering	2010 Comprehensive Master Plan Update
Capital Improvements Plan	Yes	Local, State	Engineering	6-year, Capital Improvement Plan
Floodplain Management/Basin Plan	Yes	Local, State	Engineering and Construction	Floodplain Mgt. Plan; File #33007-20
Stormwater Management Plan	Yes	Local, State	Public Works and Engineering	Element in the Master Plan
Open Space Plan	Yes	Local, State	Engineering	Element in the Master Plan
Stream Corridor Management Plan	No	N/A	Engineering	However, element describing stream corridors in Stormwater Mgt. Plan
Watershed Management or Protection Plan	No	N/A	Engineering	
Economic Development Plan	Yes	Local, State	Administration	Element in the Master Plan
Comprehensive Emergency Management Plan	Yes	Local, State	Police, Fire and OEM	Element in the Master Plan
Emergency Response Plan	Yes	State, County, Local	Cape May County OEM	Emergency Operations Plan
Post-Disaster Recovery Plan	Yes	Local, County, State	OEM/Administration Dept.	Element in Master Plan and CMC All Hazard Mitigation Plan
Transportation Plan	Yes	State, Local	Engineering Office	Circulation Element in Master Plan
Strategic Recovery Planning Report	No	N/A	N/A	N/A
Other Plans:				
Regulatory Capability				
Building Code	Yes	State, Local	Construction Office	State Uniform Construction Code, NJSA
Zoning Ordinance	Yes	State, Local	Land Use Board	Chapter 276: Land Development
Subdivision Ordinance	Yes	State, Local	Land Use Board	Chapter 276: Land Development
NFIP Flood Damage Prevention Ordinance	Yes	Federal, State, Local	CRS Coordinator/Floodplain Manager	Chapter 252: Flood Damage Prevention
NFIP: Cumulative Substantial Damages	Yes	Local	Construction Office and Engineer	Cumulative Substantial Improvement
NFIP: Freeboard	Yes	State, Local	Construction and Engineering	City Code and Ordinance
Growth Management Ordinances	Yes	Local, State	Environmental Consultant	It's our Community Forestry and Vegetation Management Plan.
Site Plan Review Requirements	Yes	State, Local	Building and Land Use Board	Chapter 276: Land Development



Table 9.8-6. Planning and Regulatory Tools

Tool/Program (code, ordinance, plan)	Do you have this? (Yes/No)	Authority (local, county, state, federal)	Dept./Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Stormwater Management Ordinance	Yes	State, Local	Public Works and Engineering services	Chapter 379: Stormwater Control Ordinance
Municipal Separate Storm Sewer System (MS4)	Yes	State, Local	Public Works and Engineering services	Element in the Master Plan
Natural Hazard Ordinance	Yes	State, Local	Engineering	Element in Master Plan and City Code
Post-Disaster Recovery Ordinance	No	N/A	N/A	N/A
Real Estate Disclosure Requirement	Yes	State, Local	City Clerk Office	City Code
Other [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]	Yes	Federal, Local	Floodplain Management Official & Engineering Services	Chapter 196: Coastal Beach Zone; Chapter 276-51: Critical Areas

Administrative and Technical Capability

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

Table 9.8-7. Administrative and Technical Capabilities

Resources	Is this in place? (Yes or No)	Department/Agency/Position
Administrative Capability		
Planning Board	Yes	Planning Board and Zoning Board of Adjustment
Mitigation Planning Committee	Yes	Program for Public Information Committee
Environmental Board/Commission	Yes	Environmental Commission
Open Space Board/Committee	Yes	Cape May County Open Space Board
Economic Development Commission/Committee	Yes	Economic Development Commission/North Wildwood
Maintenance Programs to Reduce Risk	Yes	PPI Committee / Flood Info Page / OEM Pamphlets
Mutual Aid Agreements	Yes	Several shared service agreements between Wildwood, Wildwood Crest and North Wildwood
Technical/Staffing Capability		
Planner(s) or Engineer(s) 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.
Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	Vannote Harvey and Associates – Our City Engineer Services



Table 9.8-7. Administrative and Technical Capabilities

Resources	Is this in place? (Yes or No)	Department/Agency/Position
Planners or engineers with an understanding of natural hazards	Yes	Vannote Harvey and Associates – Our City Engineer Services
NFIP Floodplain Administrator	Yes	Engineer, Ralph Petrella – Vannote Harvey and Associates of Cape May Court House, NJ
Surveyor(s)	Yes	Dr. Stewart Farrell, Stockton Coastal Research
Personnel skilled or trained in GIS and/or Hazus-MH applications	Yes	In the County and our Tax Assessor, Jason Hesley
Scientist familiar with natural hazards	No	However we do have engineering services that specialize in natural hazards and Dr. Stewart Farrell also assists us in the same.
Emergency Manager	Yes	Robert Matteucci, Director of OEM
Grant Writer(s)	Yes	TRIAD Associates – Grant Coordinator
Staff with expertise or training in benefit/cost analysis	Yes	Ralph Petrella, City Engineer
Professionals trained in conducting damage assessments	Yes	Construction Official and City Engineer

Fiscal Capability

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

Table 9.8-8. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No/Don't Know)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital Improvements Project Funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	Yes
Impact Fees for homebuyers or developers of new development/homes	No
Stormwater Utility Fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	Yes
Withhold public expenditures in hazard-prone areas	No
Other Federal or State Funding Programs	Yes
Open Space Acquisition Funding Programs	Yes
Other	

Education/Outreach and Community Classifications

The table below summarizes education/outreach programs the community participates in and the classifications for community program available to the City of North Wildwood.

Table 9.8-9. Education/Outreach and Community Classifications

Program	Do you have/participate in this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	Yes	7	October 1, 2000





Table 9.8-9. Education/Outreach and Community Classifications

Program	Do you have/participate in this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	3 for Residential and 3 for Commercial	2012
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	3	2/1/15
Storm Ready	No	N/A	N/A
Firewise	No	N/A	N/A
Disaster/Safety Programs in/for Schools	No	N/A	N/A
Organizations with Mitigation Focus (advocacy group, non-government)	Yes - GTR, Sustainable Jersey and Tree City USA	N/A	N/A
Public Education Program/Outreach (through website, social media)	Yes	N/A	N/A
Public-Private Partnerships	No	N/A	N/A

The classifications listed above relate to the community’s ability to provide effective services to lessen its vulnerability to the hazards identified. These classifications can be viewed as a gauge of the community’s capabilities in all phases of emergency management (preparedness, response, recovery, and mitigation) and are used as an underwriting parameter for determining the costs of various forms of insurance. The Community Rating System (CRS) class applies to flood insurance while the Building Code Effectiveness Grading Schedule (BCEGS) and Public Protection classifications apply to standard property insurance. CRS classifications range on a scale of 1 to 10 with class 1 being the best possible classification, and class 10 representing no classification benefit. Firewise classifications include a higher classification when the subject property is located beyond 1,000 feet of a creditable fire hydrant and is within five road miles of a recognized fire station.

Criteria for classification credits are outlined in the following documents:

- The Community Rating System Coordinators Manual
- The Building Code Effectiveness Grading Schedule
- The ISO Mitigation online ISO’s Public Protection website at <http://www.isomitigation.com/ppc/0000/ppc0001.html>
- The National Weather Service Storm Ready website at <http://www.weather.gov/stormready/howto.htm>
- The National Firewise Communities website at <http://firewise.org/>

Self-Assessment of Capability

The table below provides an approximate measure of the City of North Wildwood’s capability to work in a hazard-mitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities.



Table 9.8-10. Self-Assessment of Capability

Area	Degree of Hazard Mitigation Capability		
	Limited (If limited, what are your obstacles?)	Moderate	High
Planning and Regulatory Capability			X
Administrative and Technical Capability			X
Fiscal Capability	X – Money is allocated for certain things (Not flood related), We must seek grants etc. for excess funding.		
Community Political Capability			X
Community Resiliency Capability			X
Capability to Integrate Mitigation into Municipal Processes and Activities			X

National Flood Insurance Program

NFIP Floodplain Administrator (FPA)

Ralph Petrella, City Engineer

Flood Vulnerability Summary

The entire City is within the 1 percent annual chance (100-year floodplain).

Resources

The Flood Damage Prevention Ordinance (FDPO) identifies the City Engineer/Construction Official as the NFIP Floodplain Administrator. The floodplain administrator is the sole person assuming responsibilities for floodplain administration including, permit review, inspections, record keeping and GIS. The floodplain administrator is adequately trained for floodplain management responsibilities, although additional training would be welcome.

The City has a Program for Public Information (PPI) committee that develops initiatives for flood hazard messages within the City.

Compliance History

The City is currently in good standing with the NFIP; however, a compliance audit is scheduled for March 15th, 2016.

As of August 31, 2015 there are 6,301 policies in force, insuring over \$1.12 billion of property with total annual insurance premiums of \$4,384,150. Since 1978, 2,798 claims have been paid totaling \$34,091,795 (3,402 claims total have been submitted; however, 601 claims were closed without pay and 3 claims are still open).

Regulatory

The City of North Wildwood’s floodplain regulations meet the minimum State and FEMA requirements, in accordance with the 2013 CRS Manual and uniform construction code.





Community Rating System

The City of North Wildwood is currently a Class 7 community in the Community Rating System (CRS) program, however, they have a full cycle audit on March 15th and expect to drop a class or two.

Integration of Hazard Mitigation into Existing and Future Planning Mechanisms

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, each community was surveyed to obtain a better understanding of their community's progress in plan integration. A summary is provided below. In addition, the community identified specific integration activities that will be incorporated into municipal procedures.

Planning

Land Use Planning: The City has a Master Plan that was most recently revised in 2010. The Master Plan considers areas of natural hazard risk, and refers to the hazard mitigation plan. Open space, growth, economic development, re-development, watershed management and waterfront revitalization are all addressed in the Master Plan, working in conjunction with the mitigation element. The Comprehensive Master Plan also includes a Continuity of Operations plan.

Stormwater Management: The City is a MS4 Regulated Community and has a Stormwater Management Plan. This plan specifies projects/actions/initiatives/ to reduce the volume of stormwater and otherwise mitigate stormwater flooding.

Comprehensive Emergency Management Plan: The City has Comprehensive Emergency Management Plan that refers to the Hazard Mitigation Plan.

Post-Disaster Recovery Plan: The City's Post-Disaster Recovery Plan refers to the Hazard Mitigation Plan and includes specific mitigation projects and activities.

Community Forestry Management Plan: soon to be adopted

Vegetation Management Plan: soon to be adopted

Regulatory and Enforcement (Ordinances)

The City has multiple chapters pertaining to the mitigation of hazards. These ordinances include: Ordinance 1637 – “An Ordinance Providing for Flood Damage Prevention” (11/19/13), Ordinance 1660 – Providing a definition for Substantial damage (10/7/14), Resolution – Authorizing the Establishment of a PPI (2/4/14), Ordinance 1655 – Amending and Supplementing Chapter 252, Flood Damage Prevention of the City Code of North Wildwood, NJ: LOMR-F/CLOMR-F are prohibited for use of filling in the regulatory floodplain for map changing purposes (8/5/14), Ordinance 1640 Amending sections of the City code relative to floodplain administration.

The Planning and Zoning Boards have multiple tools and resources available to guide their decisions with respect to natural hazard risk management including GIS mapping, NFIP/FEMA info, Floodplain Management Plan and Zoning maps. Developers in the City are required to take additional actions to mitigate natural hazard risk:

- The use of fill cannot be used for LOMR-F/CLOMR-F purposes.
- Higher regulatory standard – Freeboard 2ft above BFE.
- Variances must be applied to Land Use Board, for large scale development of properties.
- Storm water Management requirement – Must adhere to storm water management requirements.



- Bulkhead requirements via ordinance.

The NFIP Flood Damage Protection ordinance includes provisions that exceed the minimum requirements including increased freeboard, substantial damage, prohibition on the use of fill for a LOMR/CLOMR and more.

Operational and Administration

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, Mayor, Administrator, Public Works Superintendent, and OEM Director all have functions related to managing natural hazard risk.

Stormwater Management: Stormwater management in the City is performed by the stormwater manager. The Mayor and Administrator oversee the performance and relevant materials are submitted for CRS program coordination.

Technical Capabilities: City engineering staff have experience with benefit cost analysis. The City Construction Official can perform substantial damage estimates. OEM staff and contract support (Triad Associates) have experience in preparing grant applications for mitigation projects.

Training and Education: City staff receive training and continuing professional education that supports natural hazard risk reduction. Staff would benefit from additional training on public information distribution.

Funding

Operating Budget: The City's operating budget included line items for mitigation projects/activities.

Capital Improvements Budget: The City's capital improvement budget included mitigation-related projects.

Grants: The City has pursued and been awarded various grant funds for mitigation related projects including Green Communities through NJDEP for CFMP and CDBG funds.

Open Space: The City has an open space fund that may be used to fiscally support hazard mitigation projects. This is currently being used for Bill Henfey Park and will be utilized for a few more projects in the future.

Education and Outreach

The City has a Program for Public Information (PPI) committee with members representing various stakeholder groups including insurance, financial, office of the mayor, engineering and emergency management. Ronald Simone, the PPI Committee Chairperson, disseminates flood risk information to the public through several lines of communication.

Enhancements that would promote further public outreach and education in the community include signs that explain the science behind natural hazard risk management.

9.8.6 Mitigation Strategy and Prioritization

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



Past Mitigation Initiative Status

The following table indicates progress on the community’s mitigation strategy identified in the 2010 Plan. 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 may also be found under ‘Capability Assessment’ presented previously in this annex.



Table 9.8-11. Past Mitigation Initiative Status

Initiative Number	2010 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	Next Step (Include in 2016 HMP? or Discontinue)	Describe Next Step 1. If including action in the 2016 HMP, revise/reword to be more specific (as appropriate). 2. If discontinue, explain why.
NW-1a	Where appropriate, support retrofitting of structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. Identify facilities that are viable candidates for retrofitting based on cost-effectiveness versus relocation. Where retrofitting is determined to be a viable option, consider implementation of that action based on available funding.	City (likely through NFIP Floodplain Administrator)	In Progress	1. 50 percent complete 2. 3. Local budget	Include in 2016 HMP	1. A presentation on retrofitting will be included in the PPI initiatives. 2.
NW-1b	Where appropriate, support purchase, 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. Identify facilities that are viable candidates for relocation based on cost-effectiveness versus retrofitting. Where relocation is determined to be a viable option, consider implementation of that action based on available funding.	City	In Progress	1. The City has secured 2.2.9 acres via open space funds for Bill Henfey Park. Significant progress has been made. 2. 3. Local budget/open space funds	Include in 2016 HMP	1. Continue to support, purchase or relocation of structures located in hazard probe areas to protect structures from future damage. Blue Acres application is available on the City website. 2.
NW-2	Continue active participation in incentive-based program CRS.	City	In Progress	1. The City actively participates in the CRS. 100 percent complete. 2. 3. Local budget	Include in 2016 HMP	1. Continue to amend floodplain ordinances in accordance with changes in FEMA requirements. 2.
NW-3	Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0	City (through mitigation planning point of contacts)	In Progress	1. 100 percent 2. 3. Local budget	Include in 2016 HMP	1. Continually implement, monitor and maintain the hazard mitigation plan and update the plan every five years. 2.



<u>Initiative Number</u>	<u>2010 Mitigation Action</u>	<u>Responsible Party</u>	<u>Status</u> (In progress, No progress, Complete)	<u>Describe Status</u> 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	<u>Next Step</u> (Include in 2016 HMP? or Discontinue)	<u>Describe Next Step</u> 1. If including action in the 2016 HMP, revise/reword to be more specific (as appropriate). 2. If discontinue, explain why.
NW-4	Strive to maintain compliance with, and good-standing in the National Flood Insurance program.	Municipality (likely through NFIP Floodplain Administrator)	In Progress	1. 80 percent complete. Significant progress has been made including the formation of a PPI for distributing flood insurance information. 2. 3. Local budget	Include in 2016 HMP	1. Continue to disseminate flood insurance information courtesy of NFIP and FEMA distribution center. 2.
NW-5	Continue to develop, enhance, and implement existing emergency plans.	Municipal Emergency Manager with support from County OEM and NJ OEM	In Progress	1. 100 percent, ongoing 2. Local budget 3.	Include in 2016 HMP	1. This action is ongoing. 2.
NW-6	Create/enhance/ maintain mutual aid agreements with neighboring communities.	City	In Progress	1. 30 percent, ongoing. The City has several shared services agreements. 2. 3. Local budget	Include in 2016 HMP	1. Promote shared services. 2.
NW-7	Support County-wide initiatives identified in Section 9.1 of the County Annex.	Local departments (as applicable for specific initiative)	In Progress	1. Significant progress has been made. The action is ongoing. 2. 3. Local budget	Include in 2016 HMP	1. 2.
NW-8	Replace/repair/upgrade bay front storm sewer outfall lines (20 linear feet of pile, manhole, Tideflex valve, bulkhead repair and/or collar, restoration of disturbed areas). 26 locations identified by Van Note Harvey Associates per September 21, 2009 estimate provided to City	Engineering	In Progress	1. 70 to 80 percent complete 2. 3. Local budget and some FEMA for damages caused by Hurricane Sandy.	Include in 2016 HMP	1. This action is ongoing. Some outfall lines may need to be replaced after October 2, 2015 Nor'easter 2.
NW-9	Elevate tie-in section of State Route 147 into North Wildwood. City has a letter into State DOT to elevate Spruce Avenue (SR-147) from Delaware (300 – 600 blocks)	State DOT with municipality	In Progress	1. 50 percent complete 2. The State and County have begun and continue to make infrastructure improvements including some major projects. 3.	Include in 2016 HMP	1. Continue to make infrastructure improvements to Spruce. 2.
NW-10	Elevate engine room floors of fire stations at 2 nd and New Jersey, and 15 th and Central Avenue	Municipality (engineering with fire department)	In Progress	1. 20 percent complete. Off shore storage was created for most vehicles at 15 th and Central station. 2. 3. Local budget/grants	Include in 2016 HMP	1. Elevate engine room floors of fire station at 2 nd and New Jersey. 2.



Initiative Number	2010 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	Next Step (Include in 2016 HMP? or Discontinue)	Describe Next Step 1. If including action in the 2016 HMP, revise/reword to be more specific (as appropriate). 2. If discontinue, explain why.
NW-11	Retrofit both fire houses and police dispatch (wind resistance and continuity of operations)	Municipality (engineering and emergency management)	In Progress	1. 100 percent complete 2. 3. Local budget	Include in 2016 HMP	1. Continue to make upgrades for storm hazard prevention. 2.
NW-12	Complete development and implementation of a COOP/COG plan for all government operations (an annex to the City's EOP). This plan shall be coordinated with the County and Lower Township, and shall include agreements with both.	Emergency Management with County OEM and Lower Township	In Progress	1. 100 percent complete 2. 3. Local budget – included in our Master Plan/EOC	Include in 2016 HMP	1. Continue to amend when/where needed. 2.
NW-13	Upgrade pipe (increase size) from Central Avenue from Chestnut to New York Avenue. This will get rid of two outfalls on the inlet beach. This project is related to the following project.	Construction Office, Engineering and DPW	In Progress	1. 100 percent complete 2. 3. Local budget	Include in 2016 HMP	1. Continue to make improvements that will reduce flood risk. 2.
NW-14	Upgrade and tie-in stormwater pump station at Pine and New York Avenue. This will control flooding on the secondary way out of town after Spruce Avenue (SR-147).	Construction Office, Engineering and DPW	In Progress	1. 20 percent complete 2. Funding 3. Local budget	Include in 2016 HMP	1. It is anticipated that progress will continue in 2017. 2.
NW-15	Continue providing educational materials, and advising and assisting property owners on retrofitting existing buildings through the City Construction Office.	Construction Office, Emergency Management	In Progress	1. 80 percent complete – continue to distribute and disseminate 2. 3. Local budget	Include in 2016 HMP	1. Update material in conjunction with FEMA distribution office. 2.
NW-16	Continue to enforce the City's Flood Plain Ordinance requiring all buildings substantially damaged be elevated to 1-foot above the BFE.	Construction Office, Emergency Management	In Progress	1. 100 percent enforced 2. 3. Local budget	Include in 2016 HMP	1. Continue to enforce the City's Flood Plain Ordinance requiring all buildings substantially damaged be elevated to 2-foot above the BFE. 2.
NW-17	Continue to enforce the City's Flood Plain Ordinance that improvements to a building area	Construction Office,	In Progress	1. 100 percent enforced 2. 3. Local budget	Include in 2016 HMP	1. In compliance 2.



Initiative Number	2010 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	Next Step (Include in 2016 HMP? or Discontinue)	Describe Next Step 1. If including action in the 2016 HMP, revise/reword to be more specific (as appropriate). 2. If discontinue, explain why.
	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.	Emergency Management				
NW-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	In Progress	1. 100 percent compliance 2. 3. Local budget	Include in 2016 HMP	1. 2.
NW-19	Continue to support the prohibition of development within the beach/dune and coastal wetland open space preservation areas.	Construction Office, Emergency Management	In Progress	1. 100 percent compliance 2. 3.	Include in 2016 HMP	1. 2.
NW-20	Encourage the development of dunes along the City's beachfront to protect against erosion and storm surge inundation	Planning, Construction Office, Emergency Management	In Progress	1. 100 percent compliance 2. 3. Local budget	Include in 2016 HMP	1. 2.
NW-21	Maintain existing zoning regulations to prevent an increase in development densities.	Planning Board	In Progress	1. 100 percent compliance 2. 3. Local budget	Include in 2016 HMP	1. 2.
NW-22	The Building Inspector will continue to maintain FEMA elevation certificates for all permits for new buildings or improvements to buildings.	City Building Inspector	In Progress	1. 100 percent compliance 2. 3. Local budget	Include in 2016 HMP	1. 2.
NW-23	Continue to inform the public about financial assistance available for property elevation, acquisitions and retrofitting	Emergency Management, Engineering	In Progress	1. 100 percent compliance 2. 3. Local budget	Include in 2016 HMP	1. Continue to update website with grant opportunities for property elevation. 2.
NW-24	Support the completion of the North Wildwood Beach Nourishment Project, being completed by the NJDEP. The project covers the entire front beach of North Wildwood (2nd to 26th) providing a dune, built	NJDEP with City support	Complete	1. 100 percent complete 2. 3. NJDEP and local match	Discontinue	1. 2. Project is complete. Would like to include city's support of the "Draft Feasibility Study" prepared by NJDEP and U.S. Army Corp of Engineers



Initiative Number	2010 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	Next Step (Include in 2016 HMP? or Discontinue)	Describe Next Step 1. If including action in the 2016 HMP, revise/reword to be more specific (as appropriate). 2. If discontinue, explain why.
	to a height of 14.75 NAVD and approx. 300' of berm in front of the dune. This project also extends into the inlet section of N. Wildwood for approximately one block and into the City of Wildwood for approx. the same distance. Included in this project are three outfall pipe replacements, 15 pedestrian crossovers, 4 handicap crossovers and 3 vehicle crossovers. When completed, the dune will be planted with dune grasses and fenced at the toe on both the seaward and leeward sides.					
NW-25	Work with property owners along bayside to install and/or upgrade bulkheads to 7.5'	Municipality (engineering and DPW)	In Progress	1. 30 percent complete 2. 3. Local budget	Include in 2016 HMP	1. Prepare a priority list for bulkheads 2.
NW-26	Work with USACE to raise the seawall along Hereford Inlet.	USACE, Municipality (engineering and DPW)	Complete	1. 100 percent 2. 3. Local budget, DEP, ACOE	Include in 2016 HMP	1. Work with USACE on future mitigation projects, including feasibility study. 2.
NW-27	Work with County to upgrade stormwater drainage along CR-621 and arterials	County Engineering and municipality (engineering and DPW)	In Progress	1. 50 percent complete 2. 3. County and local budget	Include in 2016 HMP	1. 2.
NW-28	Upgrade DPW buildings which are currently located in Butler buildings that are extremely vulnerable to most any storm events	Municipality (engineering)	In Progress	1. 0 percent complete 2. Budgetary constraints 3. Local budget	Include in 2016 HMP	1. Project timeline 2.
NW-29	Retrofit school for coastal storms and other severe storms (e.g. wind resistant glazing or storm shutters, redundant utilities)	Municipality (engineering)	In Progress	1. 100 percent - ongoing 2. 3. School board budget	Include in 2016 HMP	1. 2.
NW-30	Replace/upgrade manhole covers for sanitary system to	Municipality (engineering)	In Progress	1. 100 percent complete 2.	Include in 2016 HMP	1. 2.



Initiative Number	2010 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	Next Step (Include in 2016 HMP? or Discontinue)	Describe Next Step 1. If including action in the 2016 HMP, revise/reword to be more specific (as appropriate). 2. If discontinue, explain why.
	reduce stormwater inflow that overtaxes sanitary system			3. Local budget		
NW-31	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	In Progress	1. 100 percent - ongoing 2. 3. Local budget	Include in 2016 HMP	1. Ongoing activity overseen by Dr. Stewart Farrell, Stockton Coastal Research consultant and surveyor. 2.
NW-32	Determine design strength of light poles at Allen Park, and address deficiencies as necessary.	Municipality (engineering)	Complete	1. 100 percent complete 2. 3. Local budget	Include in 2016 HMP	1. In addition, Bill Henfey Park – seeking funding for self-sustainable lights. 2.
NW-33	Elevate Beach Patrol Building	Municipality (engineering)	In Progress	1. 0 percent 2. Budget constraints 3. Local budget	Include in 2016 HMP	1. Anticipated redevelopment project planned for 2017 2.
NW-34	Install backup power at traffic lights on critical roadways (e.g. evacuation routes)	Municipality (engineering)	In Progress	1. Close to 100 percent, if not complete 2. 3. Local budget	Include in 2016 HMP	1. 2.
NW-35	Install bulkhead along oceanfront beach to protect dune	Municipality (engineering)	In Progress	1. 0 percent complete 2. Dunes need restructuring 3. Local budget	Include in 2016 HMP	1. 2.
NW-36	Dredge back bay outfalls that are currently silted-in and do not drain as designed to mitigate flooding.	Municipality (engineering)		1. 50 percent complete 2. 3. Local budget and NJDOT	Include in 2016 HMP	1. Work with NJDOT on any/all future backbay dredging projects. 2.
NW-37	Determine a solution to backflow flooding problem at Pine and Angelsea Drive (joint project with State)	Municipality (engineering) with State DOT	In Progress	1. 0 percent complete 2. Budgetary constraints 3. Local budget	Include in 2016 HMP	1. Continue to install tide flex valves/emergency sewer repairs 2.
NW-38	Purchase high volume portable pumps to help dewater critical areas in an emergency	Municipality (emergency management and engineering)	In Progress	1. 100 percent complete – City purchased a vector truck 2. 3. Local budget	Include in 2016 HMP	1. Continue to search for more grants for potable dewatering systems 2.
NW-39	Install lightning protection to critical facilities that are currently unprotected, including the OEM building and the NOAA GOES-6 weather station at 5 th and the bay (both of which have been damaged	Municipality (engineering) with emergency management and NOAA	Complete	1. 100 percent complete 2. 3. Local budget	Include in 2016 HMP	1. Continue to support the construction and installation of more lightning protection. 2.



<u>Initiative Number</u>	<u>2010 Mitigation Action</u>	<u>Responsible Party</u>	<u>Status</u> (In progress, No progress, Complete)	<u>Describe Status</u> 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	<u>Next Step</u> (Include in 2016 HMP? or Discontinue)	<u>Describe Next Step</u> 1. If including action in the 2016 HMP, revise/reword to be more specific (as appropriate). 2. If discontinue, explain why.
	previously), and other communications facilities					



Completed Mitigation Initiatives not Identified in the Previous Mitigation Strategy

The City has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2010 Plan:

- PPI Committee Initiatives: Annual presentations held by municipality on flood damage prevention and the NFIP (led by the PPI committee; funded by local budget; Ongoing action completed in 2014 and 2015)
- There have been several beach nourishment projects completed in the Borough through federal, state and local programs. For details regarding these projects, refer to the NJBPN annual reports for Cape May County: <http://intraweb.stockton.edu/eyos/page.cfm?siteID=149&pageID=9>

Proposed Hazard Mitigation Initiatives for the Plan Update

Table 9.8-12 summarizes the comprehensive-range of specific mitigation initiatives the City would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

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

Table 9.8-13 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.8-12. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures (1)	Hazard(s) Mitigated (2)	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
CNW-1a (formerly NW-1a)	<p>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. Identify facilities that are viable candidates for retrofitting based on cost-effectiveness versus relocation. Where retrofitting is determined to be a viable option, consider implementation of that action based on available funding.</p> <p>The City has done extensive public education and outreach regarding available mitigation opportunities, including informing City of North Wildwood RL/SRL property owners of workshops on April 9, 2016 (in Ocean City) and again on April 16, 2016 (in Wildwood) to learn more about current and future opportunities to mitigate their flood-prone properties. The City has formally been an active participant in the “Enhanced RL/SRL Initiative” within this plan update process, as described further in Section 6.</p> <p>Funding sources: FEMA Mitigation Grant Programs (primarily HMGP and FMA); local property owner for match as supported by ICC and other non-Federal match sources as available.</p>											
	See above.	Existing	Coastal Storm, Flood, Severe Weather	1, 2, 4, 6	City (through NFIP Floodplain Administrator)	High	High	See above.	Long-term DOF	M-H*	EAP, SIP	PI, PP
CNW-1b (formerly NW-1b)	<p>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. Identify facilities that are viable candidates for acquisition/relocation based on cost-effectiveness versus retrofitting. Where acquisition/relocation is determined to be a viable option, consider implementation of that action based on available funding.</p> <p>The City has done extensive public education and outreach regarding available mitigation opportunities, including informing City of North Wildwood RL/SRL property owners of workshops on April 9, 2016 (in Ocean City) and again on April 16, 2016 (in Wildwood) to learn more about current and future opportunities to mitigate their flood-prone properties. The City has formally been an active participant in the “Enhanced RL/SRL Initiative” within this plan update process, as described further in Section 6.</p> <p>Funding sources: FEMA Mitigation Grant Programs (primarily HMGP and FMA); local property owner for match as supported by ICC and other non-Federal match sources as available.</p>											
	See above.	Existing	Coastal Storm, Flood, Severe Weather	1, 2, 4, 6	City (through NFIP Floodplain Administrator)	High	High	See above.	Long-term DOF	M-H*	EAP, SIP	PI, PP
CNW- 2 (formerly NW-2)	Continue active participation in incentive-based program CRS.	New & Existing	Flood	1, 2, 6	City (through NFIP Floodplain Administrator)	Medium	Low - Medium	Local Budget	Short	High	LPR, SIP	PR, PP,
CNW- 3 (formerly NW-3)	Continually implement, monitor and maintain the hazard mitigation plan and update the plan every five years.	New & Existing	All Hazards	1 through 6	City (through mitigation planning point of contacts)	Medium	Low – High (for 5-year update)	Local Budget, possibly FEMA Mitigation Grant Funding for	Ongoing	Medium	LPR, EAP	PR, PI



Table 9.8-12. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures (1)	Hazard(s) Mitigated (2)	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
								5-year update				
CNW- 4 (formerly NW-4)	Strive to maintain compliance with, and good-standing in the National Flood Insurance program.	New & Existing	Flood	1, 2, 4, 5, 6	Municipality (through NFIP Floodplain Administrator)	High	Low - Medium	Local Budget	Ongoing	High	LPR, SIP, NSP	PP, PI, NR
CNW- 5 (formerly NW-5)	Continue to develop, enhance, and implement existing emergency plans.	New & Existing	All Hazards	1, 3, 4, 6	Municipal Emergency Manager with support from County OEM and NJ OEM	Medium	Low - Medium	Local Budget	Ongoing	Medium	LPR	PR, ES
CNW- 6 (formerly NW-6)	Create/enhance/ maintain mutual aid agreements with neighboring communities and promote shared services.	New & Existing	All Hazards	1, 3, 4, 6	Local Departments	Medium	Low - Medium	Local Budget	Ongoing	Medium	LPR	PR
CNW- 7 (formerly NW-7)	Support County-wide initiatives identified in Section 9.1 of the County Annex.	New & Existing	All Hazards	1 through 6	Local Departments (as applicable for specific initiative)	Medium-High	Low - High	Existing programs and grant funding where applicable	Ongoing – Long-term depending on initiative	M-H (dependent)	LPR, SIP, NSP, EAP	PR, PP, PI, NR, ES, SP
CNW- 8 (formerly NW-8)	See above.	Existing	Coastal Storms, Coastal Erosion, Severe Weather, Flooding	1, 3	Engineering	High	High (~800K)	Local Budget with HMA grant programs as applicable	Longterm DOF	Medium	SIP	PP
CNW- 9 (formerly NW-9)	Continue to make infrastructure improvements to Spruce Avenue (SR-147) from Delaware (300 – 600 blocks)	N/A	Coastal Storms, Flooding	1, 3, 4	State DOT with municipality	High	High	State	Longterm DOF	Medium	SIP	PP, SP



Table 9.8-12. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures (1)	Hazard(s) Mitigated (2)	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
CNW-10 (formerly NW-10)	Elevate engine room floors of fire stations at 2 nd and New Jersey.	Existing	Coastal Storms, Flooding	1, 3, 4	Municipality (engineering with fire department)	High	High	HMA grant programs with local budget match	Longterm DOF	Medium	SIP	SP
CNW-11 (formerly NW-11)	Continue to make upgrades to both fire houses and police dispatch for storm hazard prevention.	Existing	Coastal Storms, Severe Weather, Severe Winter Weather, Flooding, Tsunami	1, 3, 4	Municipality (engineering and emergency management)	High	High	HMA grant programs with local budget match	Longterm DOF	Medium	SIP	PP
CNW-12 (formerly NW-12)	Continue to amend COOP/COG plan for all government operations when/where needed.	N/A	All Hazards	1, 3, 4, 6	Emergency Management with County OEM and Lower Township	Medium	Medium	Local Budget	Short-term	High	LPR	PR
CNW-13 (formerly NW-13)	Continue to make improvements that will reduce flood risk from Central Avenue from Chestnut to New York Avenue.	Existing	Coastal Storms, Severe Weather, Flooding	1, 3, 4	Construction Office, Engineering and DPW	High	Currently funded locally	Local Budget	Short-term (est. completion 2010?)	High	SIP	PP
CNW-14 (formerly NW-14)	Continue to upgrade and tie-in stormwater pump station at Pine and New York Avenue. This will control flooding on the secondary way out of town after Spruce Avenue (SR-147).	N/A	Coastal Storms, Severe Weather, Flooding	1, 3, 4	Construction Office, Engineering and DPW	High	High (~\$1M)	HMA grant programs with local budget match	Short-term DOF	High	SIP	PP
CNW-15 (formerly NW-15)	Continue providing educational materials, and advising and assisting property owners on retrofitting existing buildings through the City	N/A	All Hazards	1, 2, 4	Construction Office, Emergency Management	Low	Low	Local Budget	Ongoing	High	EAP	PI



Table 9.8-12. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures (1)	Hazard(s) Mitigated (2)	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
	Construction Office. Update this material in conjunction with FEMA distribution office.											
CNW-16 (formerly NW-16)	Continue to enforce the City's Flood Plain Ordinance requiring all buildings substantially damaged be elevated to 2-foot above the BFE.	N/A	Coastal Storms, Severe Weather, Flooding	1, 2, 4	Construction Office, Emergency Management	Medium	Low	Local Budget	Ongoing	High	LRP	PR
CNW-17 (formerly NW-17)	Continue to enforce the City's Flood Plain 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.	N/A	Coastal Storms, Severe Weather, Flooding	1, 2, 4	Construction Office, Emergency Management	Medium	Low	Local Budget	Ongoing	High	LPR	PR
CNW-18 (formerly NW-18)	Implement / continue the City's public outreach efforts to inform residents and visitors about flood damage and protection, and hazard awareness.	N/A	Coastal Storms, Severe Weather, Flooding	2, 4, 6	Construction Office, Emergency Management	Low	Low	Local Budget	Ongoing	High	EAP	PI
CNW-19 (formerly NW-19)	Continue to support the prohibition of development within the beach/dune and coastal wetland open space preservation areas.	N/A	Coastal Storms, Coastal Erosion, Flooding, Severe Weather, Tsunami	1, 5	Construction Office, Emergency Management	Medium	Low	Local Budget	Ongoing	High	LPR	PR
CNW-20 (formerly NW-20)	Encourage the development of dunes along the City's beachfront to protect against	N/A	Coastal Storms, Coastal Erosion,	1, 3, 5	Planning, Construction Office,	Medium	Low	Local Budget	Ongoing	High	NSP	NR



Table 9.8-12. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures (1)	Hazard(s) Mitigated (2)	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
	erosion and storm surge inundation		Flooding, Tsunami		Emergency Management							
CNW-21 (formerly NW-21)	Maintain existing zoning regulations to prevent an increase in development densities.	N/A	Coastal Storms, Severe Weather, Severe Winter Weather, Flooding, Tsunami	1, 5	Planning Board	Low	Low	Local Budget	Ongoing	High	LPR	PR
CNW-22 (formerly NW-22)	The Building Inspector will continue to maintain FEMA elevation certificates for all permits for new buildings or improvements to buildings.	Both	Coastal Storms, Severe Weather, Flooding	1	City Building Inspector	Low	Low	Local Budget	Ongoing	High	LPR	PR
CNW-23 (formerly NW-23)	Continue to update website with grant opportunities for property elevation.	Existing	All Hazards	2, 4	Emergency Management, Engineering	Low	Low	Local Budget	Ongoing	High	EAP	PI
CNW-24 (formerly NW-25)	Prepare a priority list for bulkhead upgrades.	Existing	Coastal Storms, Coastal Erosion, Severe Weather, Flooding	1, 2, 4	Municipality (engineering and DPW)	High	High	HMA grant programs with local budget match	Long-term DOF	High	SIP	PP
CNW-25 (formerly NW-26)	Work with USACE on future mitigation projects, including feasibility study.	Existing	Coastal Storms, Coastal Erosion, Severe Weather, Flooding	1, 3, 4	USACE, Municipality (engineering and DPW)	High	High	TBD	Long-term DOF	Medium	SIP	PP, SP
CNW-26 (formerly NW-27)	Work with County to upgrade stormwater drainage along CR-621 and arterials	Existing	Coastal Storms, Severe Weather, Flooding	1, 3	County Engineering and municipality (engineering and DPW)	High	High	County budget with HMA grant programs as applicable	Longterm DOF	Medium	SIP	SP



Table 9.8-12. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures (1)	Hazard(s) Mitigated (2)	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
CNW-27 (formerly NW-28)	Develop a project timeline to upgrade DPW that are extremely vulnerable to most any storm events	Existing	Coastal Storms, Severe Weather, Flooding	1, 3, 4	Municipality (engineering)	High	High	HMA grant programs with local budget match	Longterm DOF	Medium	SIP	PP
CNW-28 (formerly NW-29)	Retrofit school for coastal storms and other Severe Weather (e.g. wind resistant glazing or storm shutters, redundant utilities)	Existing	Coastal Storms, Severe Weather, Severe Winter Weather	1, 3, 4	Municipality (engineering)	High	High	HMA grant programs with local budget match	Longterm DOF	Medium	SIP	PP
CNW-29 (formerly NW-30)	Replace/upgrade manhole covers for sanitary system to reduce stormwater inflow that overtaxes sanitary system	Existing	Coastal Storms, Severe Weather, Flooding	1, 3	Municipality (engineering)	High	High (>\$200K)	HMA grant programs with local budget match	Longterm DOF	Medium	SIP	PP
CNW-30 (formerly NW-31)	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.	N/A	Coastal Storms, Coastal Erosion, Severe Weather, Flooding	1, 3, 5	City and Stockton College Coastal Research Center	High	Medium - High	Local Budget	Ongoing	High	NSP	NR
CNW-31 (formerly NW-32)	Determine design strength of light poles at Bill Henfy Park, address deficiencies as necessary and seek funding for self-sustaining lights.	Existing	Coastal Storms, Severe Weather, Severe Winter Weather	1, 3	Municipality (engineering)	High	Medium - High	Engineering study to be locally funded; retrofit if needed from HMA grant programs with local budget match	Study – Short-term; Retrofit if needed - Longterm DOF	High	LPR	PR, PP
CNW-32 (formerly NW-33)	Elevate Beach Patrol Building	Existing	Coastal Storms, Severe	1, 3	Municipality (engineering)	High	High	HMA grant programs with local	Longterm DOF	Medium	SIP	PP, SP



Table 9.8-12. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures (1)	Hazard(s) Mitigated (2)	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
NW-33)			Weather, Flooding					budget match				
CNW-33 (formerly NW-34)	Install backup power at traffic lights on critical roadways (e.g. evacuation routes)	Existing	Coastal Storms, Severe Weather, Severe Winter Weather, Flooding	1, 3, 4	Municipality (engineering)	High	High	DHS grant programs with local budget match	Longterm DOF	Medium	SIP	PP
CNW-34 (formerly NW-35)	Install bulkhead along oceanfront beach to protect dune	N/A	Coastal Storms, Coastal Erosion Severe Weather, Flooding	1, 5	Municipality (engineering)	High	High	HMA grant programs with local budget match	Longterm DOF	Medium	SIP	SP
CNW-35 (formerly NW-36)	Work with NJDOT on any/all future backbay dredging projects.	Existing	Coastal Storms, Severe Weather, Flooding	1, 3, 4	Municipality (engineering)	High	High	HMA grant programs with local budget match	Longterm DOF	Medium	SIP	PP
CNW-36 (formerly NW-37)	Continue to install tide flex valves/emergency sewer repairs at Pine and Angelsea Drive (joint project with State)	Existing	Coastal Storms, Severe Weather, Flooding	1, 6	Municipality (engineering) with State DOT	High	High	State DOT; HMA grant programs with local and State budget match	Longterm DOF	Medium	LPR	PR
CNW-37 (formerly NW-38)	Continue to search for more grants for potable dewatering systems	New & Existing	Coastal Storms, Severe Weather, Flooding	1, 3, 4	Municipality (emergency management and engineering)	High	High	DHS grant programs with local budget match	Longterm DOF	Medium	LPR	ES
CNW-38 (formerly NW-39)	Continue to support the construction and installation of more lightning protection.	Existing	Severe Weather (lightning)	1, 3, 4	Municipality (engineering) with emergency management and NOAA	High	Medium - High	HMA grant programs with local budget match or NOAA	Longterm DOF	Medium	SIP	PP, ES



Table 9.8-12. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures (1)	Hazard(s) Mitigated (2)	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
CNW-39	Continue to implement the initiatives identified in the PPI.	N/A	All, particularly coastal hazards	2, 4, 5, 6	Municipality – PPI Committee	Medium	Low	Municipal Budget	Ongoing	Medium	EAP	PI
CNW-40	Seek ways to mitigate flood risk to critical facilities located in special flood hazard areas.	Existing	Flood; Coastal Storms	1, 3, 4	FEMA, NJDEP, Municipality – North Wildwood	High	Low-High	Municipal Budget	Short Term	Medium	SIP	PP
CNW-41	Include a presentation on retrofitting in the PPI initiatives.	Existing	Flood; Coastal Storms	1, 2	PPI Committee – Municipality, ISO	Medium	Low	Municipal Budget	Short Term	Medium	EAP, SIP	PI, PP
CNW-42	Continue to participate in the Blue Acres program.	N/A	Flood; Coastal Storms	1, 5, 6	NJDEP, Municipality – North Wildwood	Medium	Low	Municipal Budget	Long Term	Medium	NSP, SIP	NR, PP
CNW-43	Continue to amend floodplain ordinances in accordance with changes in FEMA requirements.	N/A	Flood; Coastal Storms	1	FEMA, ISO, Municipality – North Wildwood	Medium	Low	Municipal Budget	Ongoing	Medium	LPR	PR
CNW-44	Continue to disseminate flood insurance information courtesy of NFIP and FEMA distribution center.	N/A	Flood; Coastal Storms	2, 4	ISO, FEMA and Municipality – North Wildwood	Low - Medium	Low	Municipal Budget	Ongoing	High	EAP	PI
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).	N/A	Flood; Coastal Storms; Coastal Erosion	1, 5, 6	Army Corp., NJDEP, Municipality – North Wildwood	Medium	Medium - High	Municipal Budget	Ongoing	High	NRP, SIP	NR, PP

Notes:

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

(1) Does this mitigation initiative reduce the effects of hazards on new and/or existing buildings and/or infrastructure? Not applicable (N/A) is inserted if this does not apply.

(2) While Climate Change and Sea Level rise are not specifically identified as “hazards mitigated” in this table, it is recognized that climate change and sea level rise may exacerbate/amplify the risk of the following identified hazards: Climate Change – Coastal Erosion, Flood Coastal Storms (hurricane, tropical storms, Nor’Easters), Severe Weather, Severe Winter Weather, Wildfire; Sea Level Rise – Coastal Erosion, Flood Coastal Storms (hurricane, tropical storms, Nor’Easters), Tsunami.

Acronyms and Abbreviations:

CAV Community Assistance Visit

Potential FEMA HMA Funding Sources:

FMA Flood Mitigation Assistance Grant Program

Timeline:

Short 1 to 5 years





Acronyms and Abbreviations:

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:

HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
RFC	Repetitive Flood Claims Grant Program (discontinued)
SRL	Severe Repetitive Loss Grant Program (discontinued)

Timeline:

Long Term	5 years or greater
OG	On-going program
DOF	Depending on funding

Costs:

Where actual project costs have been reasonably estimated:

Low	< \$10,000
Medium	\$10,000 to \$100,000
High	> \$100,000

Where actual project costs cannot reasonably be established at this time:

Low	Possible to fund under existing budget. Project is part of, or can be part of an existing on-going program.
Medium	Could budget for under existing work plan, but would require a reapportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.
High	Would require an increase in revenue via an alternative source (i.e., bonds, grants, fee increases) to implement. Existing funding levels are not adequate to cover the costs of the proposed project.

Benefits:

Where possible, an estimate of project benefits (per FEMA's benefit calculation methodology) has been evaluated against the project costs, and is presented as:

Low=	< \$10,000
Medium	\$10,000 to \$100,000
High	> \$100,000

Where numerical project benefits cannot reasonably be established at this time:

Low	Long-term benefits of the project are difficult to quantify in the short term.
Medium	Project will have a long-term impact on the reduction of risk exposure to life and property, or project will provide an immediate reduction in the risk exposure to property.
High	Project will have an immediate impact on the reduction of risk exposure to life and property.

Mitigation Category:

- Local Plans and Regulations (LPR) – These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.
- Structure and Infrastructure Project (SIP)- These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also preserve or restore the functions of natural systems.
- Education and Awareness Programs (EAP) – These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities
- Emergency Management (EM) – These actions are identified as an emergency management activity; however, they are not necessarily “mitigation”

CRS Category:

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





Table 9.8-13. Summary of Prioritization of Actions

Mitigation Action / Project Number	Mitigation Action/Initiative	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
CNW-1a (formerly NW-1a)	Property Mitigation Support – Retrofit (Elevation)	1	1	1	1	1	0	0	0	1	1	1	1	1	0	10	M-H*
CNW- 1b (formerly NW-1b)	Property Mitigation Support – Acquisition/Relocation	1	1	1	1	0	0	0	0	1	1	1	1	1	0	9	M-H*
CNW- 2 (formerly NW-2)	Continue active participation in incentive-based program CRS.	0	1	1	1	1	1	0	0	1	1	1	1	1	1	11	High
CNW- 3 (formerly NW-3)	Continually implement, monitor and maintain the hazard mitigation plan and update the plan every five years.	0	1	1	1	1	1	0	0	1	1	1	1	1	1	11	Medium
CNW- 4 (formerly NW-4)	Strive to maintain compliance with, and good-standing in the National Flood Insurance program.	0	1	1	1	1	1	0	0	1	1	1	1	1	1	11	High
CNW- 5 (formerly NW-5)	Continue to develop, enhance, and implement existing emergency plans.	1	1	1	1	1	1	0	0	1	0	1	1	1	1	11	Medium
CNW- 6 (formerly NW-6)	Create/enhance/ maintain mutual aid agreements with neighboring communities and promote shared services.	1	1	1	1	1	1	0	0	1	0	1	1	1	1	11	Medium
CNW- 7 (formerly NW-7)	Support County-wide initiatives identified in Section 9.1 of the County Annex.	1	1	0	1	0	1	0	0	1	0	1	1	1	1	9	M-H (dependent)
CNW- 8 (formerly NW-8)	Replace/repair/upgrade bay front storm sewer outfall lines (20 linear feet of pile, manhole, Tideflex valve, bulkhead repair and/or collar, restoration of disturbed areas). 26 locations identified by Van Note Harvey Associates per September 21, 2009 estimate provided to City. Some outfall lines may need to be replaced after October 2, 2015 Nor'easter.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Medium
CNW- 9 (formerly NW-9)	Continue to make infrastructure improvements to Spruce Avenue (SR-147) from Delaware (300 – 600 blocks)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Medium
CNW- 10 (formerly NW-10)	Elevate engine room floor s of fire stations at 2 nd and New Jersey.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Medium
CNW- 11 (formerly NW-11)	Continue to make upgrades to both fire houses and police dispatch for storm hazard prevention.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	M



Table 9.8-13. Summary of Prioritization of Actions

Mitigation Action / Project Number	Mitigation Action/Initiative	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
CNW- 12 (formerly NW-12)	Continue to amend COOP/COG plan for all government operations when/where needed.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	High
CNW- 13 (formerly NW-13)	Continue to make improvements that will reduce flood risk from Central Avenue from Chestnut to New York Avenue.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	High
CNW- 14 (formerly NW-14)	Continue to upgrade and tie-in stormwater pump station at Pine and New York Avenue. This will control flooding on the secondary way out of town after Spruce Avenue (SR-147).	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	High
CNW- 15 (formerly NW-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.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	High
CNW- 16 (formerly NW-16)	Continue to enforce the City's Flood Plain Ordinance requiring all buildings substantially damaged be elevated to 2-foot above the BFE.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	High
CNW- 17 (formerly NW-17)	Continue to enforce the City's Flood Plain 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.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	High
CNW- 18 (formerly NW-18)	Implement / continue the City's public outreach efforts to inform residents and visitors about flood damage and protection, and hazard awareness.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	High
CNW- 19 (formerly NW-19)	Continue to support the prohibition of development within the beach/dune and coastal wetland open space preservation areas.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	High
CNW- 20 (formerly NW-20)	Encourage the development of dunes along the City's beachfront to protect against erosion and storm surge inundation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	High
CNW- 21 (formerly NW-21)	Maintain existing zoning regulations to prevent an increase in development densities.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	High
CNW- 22 (formerly NW-22)	The Building Inspector will continue to maintain FEMA elevation certificates for all permits for new buildings or improvements to buildings.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	High
CNW- 23 (formerly NW-23)	Continue to update website with grant opportunities for property elevation.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	High





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Mitigation Action / Project Number	Mitigation Action/Initiative	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
CNW- 24 (formerly NW-25)	Prepare a priority list for bulkhead upgrades.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	High
CNW- 25 (formerly NW-26)	Work with USACE on future mitigation projects, including feasibility study.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Medium
CNW- 26 (formerly NW-27)	Work with County to upgrade stormwater drainage along CR-621 and arterials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Medium
CNW- 27 (formerly NW-28)	Develop a project timeline to upgrade DPW that are extremely vulnerable to most any storm events	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Medium
CNW- 28 (formerly NW-29)	Retrofit school for coastal storms and other severe storms (e.g. wind resistant glazing or storm shutters, redundant utilities)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Medium
CNW- 29 (formerly NW-30)	Replace/upgrade manhole covers for sanitary system to reduce stormwater inflow that overtaxes sanitary system	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Medium
CNW- 30 (formerly NW-31)	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.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	High
CNW- 31 (formerly NW-32)	Determine design strength of light poles at Bill Henfy Park, address deficiencies as necessary and seek funding for self-sustaining lights.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Medium
CNW- 32 (formerly NW-33)	Elevate Beach Patrol Building	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Medium
CNW- 33 (formerly NW-34)	Install backup power at traffic lights on critical roadways (e.g. evacuation routes)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Medium
CNW- 34 (formerly NW-35)	Install bulkhead along oceanfront beach to protect dune	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Medium
CNW- 35 (formerly NW-36)	Work with NJDOT on any/all future backbay dredging projects.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Medium
CNW- 36 (formerly NW-37)	Continue to install tide flex valves/emergency sewer repairs at Pine and Angelsea Drive (joint project with State)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Medium



Table 9.8-13. Summary of Prioritization of Actions

Mitigation Action / Project Number	Mitigation Action/Initiative	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
CNW- 37 (formerly NW-38)	Continue to search for more grants for potable dewatering systems	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Medium
CNW- 38 (formerly NW-39)	Continue to support the construction and installation of more lightning protection.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Medium
CNW-39	Continue to implement the initiatives identified in the PPI.	1	1	1	1	0	0	1	0	0	1	1	1	1	0	9	High
CNW-40	Seek ways to mitigate flood risk to critical facilities located in special flood hazard areas.	1	1	1	1	0	0	1	0	0	1	1	1	1	0	9	High
CNW-41	Include a presentation on retrofitting in the PPI initiatives.	1	1	1	1	0	0	1	0	0	1	1	1	1	0	9	High
CNW-42	Continue to participate in the Blue Acres program.	1	1	1	1	0	0	1	0	0	1	1	1	1	0	9	High
CNW-43	Continue to amend floodplain ordinances in accordance with changes in FEMA requirements.	1	1	1	1	0	0	1	0	0	1	1	1	1	0	9	High
CNW-44	Continue to disseminate flood insurance information courtesy of NFIP and FEMA distribution center.	1	1	1	1	0	0	1	0	0	1	1	1	1	0	9	High
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).	1	1	1	1	0	0	1	0	0	1	1	1	1	0	9	High

*The municipality recognizes that the mitigation of RL/SRL priorities is a Federal and State priority despite the fact that limited local resources and authority limit the municipality's ability to implement this project.

Note: Refer to Section 6 which contains the guidance on conducting the prioritization of mitigation actions. Where the community has determined that the original priority ranking for “carry forward” initiatives remains valid, the earlier priority ranking is indicated on the prioritization table, however the 2016 criteria ratings are indicated with a null “-” marking.



9.8.7 Future Needs To Better Understand Risk/Vulnerability

None at this time.

9.8.8 Hazard Area Extent and Location

Hazard area extent and location maps have been 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 considered to be adequate for planning purposes. Maps have only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the City of North Wildwood has significant exposure. These maps are illustrated in the hazard profiles within Section 5.4, Volume I of this Plan.

9.8.9 Additional Comments

None at this time.



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

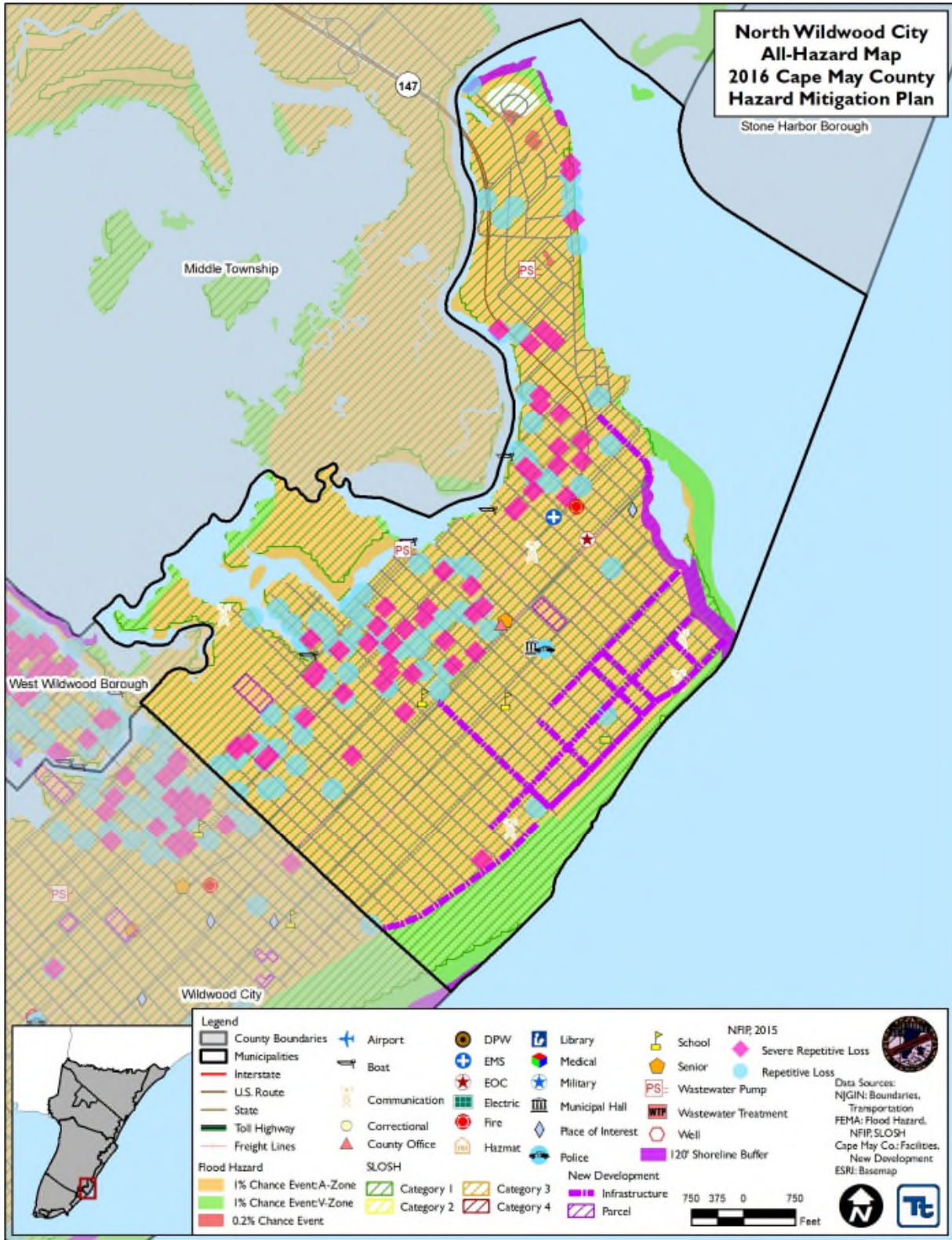




Figure 9.8-2. City of North Wildwood Hazard Area Extent and Location Map 2

