

36 – NEPTUNE TOWNSHIP

PLANNING TEAM AND PARTICIPATION

Name	Title	Participation
Michael Bascom	Emergency Management Coordinator	Point of Contact, Attended Municipal Meeting
Keith Daly	Neptune Engineer	Attended Municipal Meeting
Kyle Bascom	Deputy OEM Coordinator	Attended Municipal Meeting
Melvin Fitzpatrick	Director of Public Works	Attended Municipal Meeting
Joe Leone	Asst. Director of Public Works	Attended Municipal Meeting
Albert Fritz	Public Works, Neptune Fire Dept. Chief	Attended Municipal Meeting
Jennifer Beahm	Twp Planner – Leon S. Avakian	Attended Municipal Meeting

COMMUNITY PROFILE

Overview

Neptune Township is a coastal and inland Township in central Monmouth County. It is bounded by the Shark River estuarine environment to the south and southeast. It has a coastal border with the Atlantic at the Ocean Grove community between Bradley Beach and Asbury Park. The Township encompasses just over eight square miles and was established in 1879. There are an estimated 28,115 residents of Neptune Township (as of 2018-2022 ACS estimates).

The Township is home to several unique neighborhood districts including the historic Ocean Grove, a 19th century planned community which now has the largest concentration of Victorian architecture in the country. Shark River Park, in the southern portion of the Township, is the first park established in Monmouth County Park System. Neptune has distinct residential communities and open spaces, as well as commercial corridors along Route 66 in the northwest and east-to-west Corlies Avenue (NJ Route 33) in the south. The HMH Jersey Shore Medical Center is located along the Corlies Avenue corridor near the intersection with New Jersey Route 35.

With many major roads passing through the area, such as State Highways 18, 33, 36, 66, and 71, Neptune is known as the “Crossroads of the Jersey Shore.” A project to widen Route 66 from two to four lanes is anticipated to begin in 2024 and is scheduled to be completed by 2026. The project area ranges between Jumping Brook Road and Bowne and Wayside Roads, where a two-lane roundabout is proposed.

Neptune adopted a Strategic Recovery Planning Report in 2014 in the aftermath of Superstorm Sandy. The Township acquired and preserved land along South Riverside Drive in a flood hazard area that was originally slated for the construction of nine single family homes. In 2021, through a partnership that included Monmouth County, the Township, the Seaview Island Homeowners Association, and the American Littoral Society, work began to restore a salt marsh and create a hybrid living shoreline on Shark River Island. Another living shoreline is under construction along South Riverside Drive in the Shark River Hills neighborhood.

Land Use, Development, & Growth

Neptune Township is a predominantly residential community and home to substantial publicly owned land and commercial properties. From 2015 to 2020, the community experienced minimal change in its land use; although its agricultural land fell by 11 acres and its urban or developed land grew by 10.5 acres, its overall land use composition remained largely the same. During this period, urban or developed land accounted for 72 percent of the Township’s total area, while forested land made up 10 percent and water and wetlands together accounted for 17 percent.

Land Use Type	Total Acres (2015)	Total Acres (2020)	Percent Change
Agriculture	27.0	15.6	-42%
Barren Land	64.0	67.4	5%
Forest	574.0	571.9	>0%

Land Use Type	Total Acres (2015)	Total Acres (2020)	Percent Change
Urban	4032.3	4042.8	>0%
Water	445.4	442.3	-1%
Wetlands	493.6	496.3	1%

Source: NJDEP Land Use/Land Cover data, 2015-2020

Recent Major Development and Infrastructure from 2020 to Present

There have been several major development projects completed in Neptune Township in recent years. These include the Jersey Shore University Medical Center's Hope Tower, and the reconstruction of the Ocean Grove Boardwalk and Pier.

The Ocean Grove section of Neptune was designated by the New Jersey Chapter of the American Planning Association as a "Great Neighborhood" (2017). In 2020, the Ocean Grove Camp Meeting Association funded a parking study to identify and implement solutions to address parking issues resulting from spillover from nearby communities in the densely populated neighborhood. The Association also recently completed the replacement of the fishing pier that was lost during Superstorm Sandy.

Redevelopment Areas

Current redevelopment areas include the following:

- West Lake Avenue - no flood hazard
- Route 66 & Green Grove Road - no flood hazard
- North Channel Redevelopment - river front - under the FEMA 1% annual chance floodplain and NJ Inland Design Flood Elevation which is FEMA's 1% annual chance floodplain + 3 feet (NJFloodMapper)
- North End Redevelopment - ocean front - under the FEMA 1% annual chance floodplain and NJ Inland Design Flood Elevation which is FEMA's 1% annual chance floodplain + 3 feet (NJFloodMapper)
- Redevelopment efforts are underway at the former Coca Cola bottling plant at the Highway 35 circle, as well as the Continental Data site at the corner of Highway 66 and Green Grove Road.

Neptune recently commissioned several investigation reports for underutilized areas to determine if they should be designated as areas in need of redevelopment or rehabilitation, including the vacant site on the north end of Ocean Grove. This site was approved in 2024 to be redeveloped into mixed uses of single-family homes, condos, a hotel, retail, and an underground parking garage.

In 2018, portions of Neptune were designated as Opportunity Zones, which offer tax benefits to investors. Located at the crossroads of several major corridors and consisting of diverse residential neighborhoods, commercial and industrial areas, parks, institutions, and its seaside hamlet of Ocean Grove, Neptune is both a destination and a busy thoroughfare.

In 2023 Neptune began discussions with a Joint Venture of developers to redevelop the North Channel section of the Township with a mixed-use project which will also include a hotel. These redevelopment efforts are still underway which will necessitate an amendment to the existing North Channel Redevelopment Plan.

Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years

Neptune's most recent planning efforts established a Township-wide vision for physical and economic revitalization through residential and commercial rehabilitation, creation, and preservation.

An infrastructural project to widen Route 66 from two to four lanes is scheduled to be completed by 2026. The project area ranges between Jumping Brook Road and Bowne and Wayside Roads, where a two-lane roundabout is proposed. A portion of this is in a FEMA regulatory floodway (NJFloodMapper). A new mixed-use development is to be built in the north end of Ocean Grove, to include a hotel and combination of multi-family residential, single-family residential, and commercial uses, including public spaces and amenities. The project aims to create a northern anchor point to Ocean Grove's oceanfront and restore the historic use as a destination point for residents and visitors. This development falls

under the FEMA 1% annual chance floodplain and NJ Inland Design Flood Elevation which is FEMA's 1% annual chance floodplain + 3 feet (NJFloodMapper). All required New Jersey Department of Environmental Protection permits have been obtained.

Plans for development along Route 66 at the site of former insurance buildings are currently in progress. The plans include a warehouse distribution center and space for retail. The site, located at the intersection of Route 66 and Green Grove Road does maintain some environmentally sensitive areas, however it has not been noted as a flood prone property within the Township.

The North Channel of the Shark River has ongoing redevelopment plans which proposes a mixed-use development with hotel and amenity spaces. This is to be in a flood zone, abutting NJ-Route 35 and across the channel from Neptune's Shark River Yacht Club. This development also falls under the FEMA 1% annual chance floodplain and NJ Inland Design Flood Elevation which is FEMA's 1% annual chance floodplain + 3 feet (NJFloodMapper).

Development planned for West Lake and Springwood Avenue (Asbury) is in the final stages of agreements for 90,000 square feet of retail redevelopment, as well as residential units and a restaurant. This site is not currently in a flood zone but did experience urban flooding in September 2024. It does fall under NJ Inland Design Flood Elevation which is FEMA's 1% annual chance floodplain + 3 feet, low-lying areas (NJFloodMapper).

Demographics & Vulnerable Populations

This plan analyzed census-derived data on population trends and population age distributions to help illustrate potential vulnerability within the Township. A population increase or decrease can illustrate potential hazard vulnerability through development pressures on the built environment, or through physical and social impacts of marked population loss. A community with a large share of population under age five may indicate vulnerabilities in hazard response, resource allocation, and evacuation – FEMA identifies that the pediatric population is disproportionately affected during disasters and requires special consideration in categories of anatomy and physiology, psychological, and education vulnerabilities (FEMA, 2022, NLM, 2022). Individuals over age 65 are a growing share of the country's population and often represent the greatest share of deaths from extreme weather events and other natural disasters. A larger share of population over 65 may indicate local vulnerabilities to hazard events both before and after a disaster occurs – these populations may have mobility needs, uneven access to resources, and limited social networks that makes pre-disaster engagement challenging (FEMA, 2023).

Neptune Township's total estimated population is 28,115, of which an estimated 4.5% are under age 5, and 21.2% are over age 65. The Township's population has remained steady over the ACS periods of 2013-2017 and 2018-2022, with an estimated 1.4% population growth. With an aging population making up over twenty percent of their total community, Neptune may focus hazard mitigation efforts on those with robust messaging and engagement for older residents, evacuation plans inclusive of populations with mobility issues, and resilient networks for resource accessibility post-disaster.

Within Neptune, fourteen block groups are identified as potentially vulnerable through overburden (OBC). Of these block groups, making up the majority of Neptune's east and north, twelve block groups meet criteria for identifying overburden in Minority communities, and two block groups meet criteria for Low Income and Minority communities. There is one census tract identified under CEJST criteria for Health, Housing, Water and Wastewater, and Workforce Development environmental justice qualities. No parts of Neptune meet designation criteria for CDRZ identification.

Demographics Summary	
Total Population (2018-2022 ACS 5-year Estimates)	28,115
Population Change since 2017	1.4%
Percent of Population Age < 5	4.5%

Demographics Summary

Percent of Population > 65

21.2%

Source: 2018-2022 ACS 5-Year Estimates, 2013-2017 ACS 5-Year Estimates

HAZARD IDENTIFICATION

One of the first steps in developing a risk assessment is for participating municipalities to review and prioritize the hazards that can affect them. This was done based on how often a hazard has occurred, how significant effects have been in the past, the difficulty and cost of recovering from such events. Jurisdictions ranked the list of hazards as either high, medium, low, or no concern. The following include the Township's hazard ranking. The full risk assessment for each hazard is located in Section 4.0.

Hazard Ranking

High	Medium	Low
Natural Hazards		
Hurricane/Tropical Storm/Nor'easter	Extreme Temperatures	Lightning
Flood	Tornado	Drought
Storm Surge	Winter Storm	Earthquake
	Coastal Erosion	Dam Failure
	Wave Action	Wildfire
Human-made Hazards		
	Cyber Attack	Civil Unrest
	Economic Disruption	Power Failure
	Terrorism	
	Pandemic	

The Township ranked Landslide as N/A.

Hazard Ranking Explanation

Neptune Township has experienced hazard events through flooding, especially urban flooding and flooding related to hurricanes, tropical storms, nor'easters, and storm surges. The Township's location along both the Atlantic Coast and inland waterways, including the Shark River, makes Neptune susceptible to hazards such as rising storm surges, coastal erosion, wave action, and sea level rise.

Significant Hazard Events Since Last Plan Update

Neptune Township has noted hazard events since the last plan update, including significant urban flooding during September 2023 and December 2023 storm events. Most significant nor'easters or heavy rain events will cause considerable flooding in Neptune, impacting travel and roadways. A regular flooding occurrence happens locally (monthly) during full moon tides, when flooding twice daily for three days aligns with rising tides from the full moon – this has been noted to occur near the Condominiums by the East Avenue bridge. In July 2020, Tropical Storm Fay caused flooding throughout Neptune.

The Township experiences substantial riverine erosion along the Shark River in the Shark River Hills area – this is being addressed by ongoing mitigation efforts, including building a stabilizing living shoreline in the area. Critical infrastructure in the Township has been hit by lightning, including the 911 system and pump station radio systems. This creates concern for other critical infrastructure located at the highest point in Monmouth County, particularly other County communications infrastructure.

Climate Change Impacts on Extent and Magnitude of Hazards

Climate change is expected to increase risks in Neptune Township, causing more frequent and intense hurricanes, nor'easters, and storm surges. This will worsen coastal erosion and flooding, especially in low-lying and flood zone areas.

Rising sea levels will increase the vulnerability of critical infrastructure and homes near the coast and waterways like Shark River.

The Township will also face extreme temperatures and droughts, straining resources and infrastructure. The aging population, over 21%, may experience higher health risks and evacuation difficulties during emergencies. Additionally, more frequent power failures could hinder disaster response and recovery.

RISK ASSESSMENT

National Flood Insurance Program (NFIP) statistics

Neptune Township	
Initial FIRM Date	2/16/77
Effective FIRM Date	6/15/2022
Number of Policies In-Force:	592
Total Losses:	422
Total Payments:	\$22,695,181.55
Number of RL Properties:	5
Number of Mitigated RL Properties:	0
RL – Total Losses:	10
RL – Total Paid:	\$827,507.42
Number of SRL Properties:	1
Number of Mitigated SRL Properties:	0
SRL – Total Losses:	6
SRL – Total Paid:	\$183,503.94

Source: FEMA Policy and Loss Data, August 2024

Vulnerability of the Built Environment

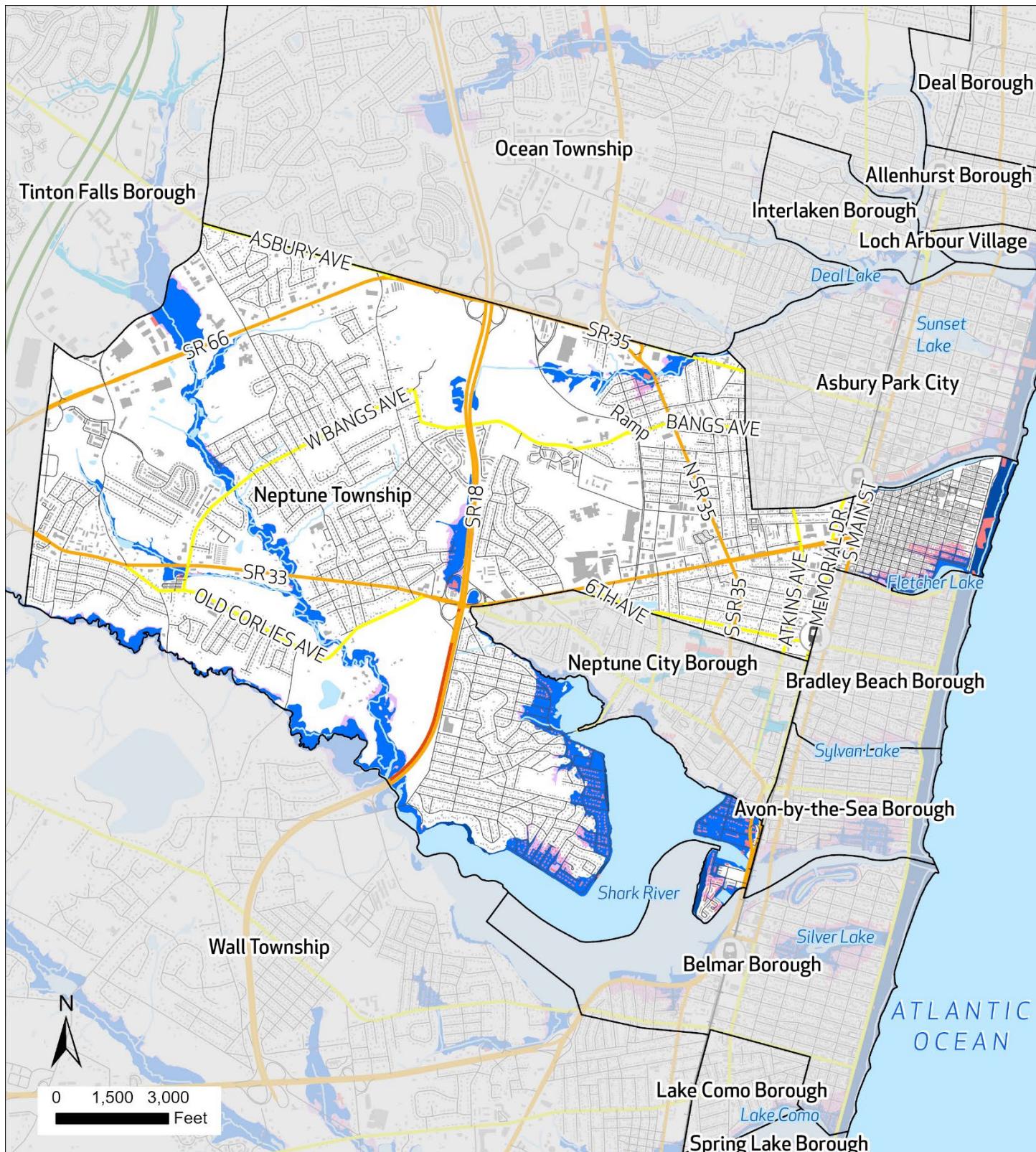
The Special Flood Hazard Area (SFHA) in the Township of Neptune is primarily located adjacent to the many streams which pass through town flowing into the Shark River or Atlantic Ocean, as well as the areas near Fletcher Lake and the Atlantic Ocean in Ocean Grove. Approximately 9.4 percent of the total land area of Neptune Township lies within the 1% annual chance flood zone as defined by FEMA. An additional 1.2 percent of the area of the municipality is in the 0.2% annual chance flood zone.

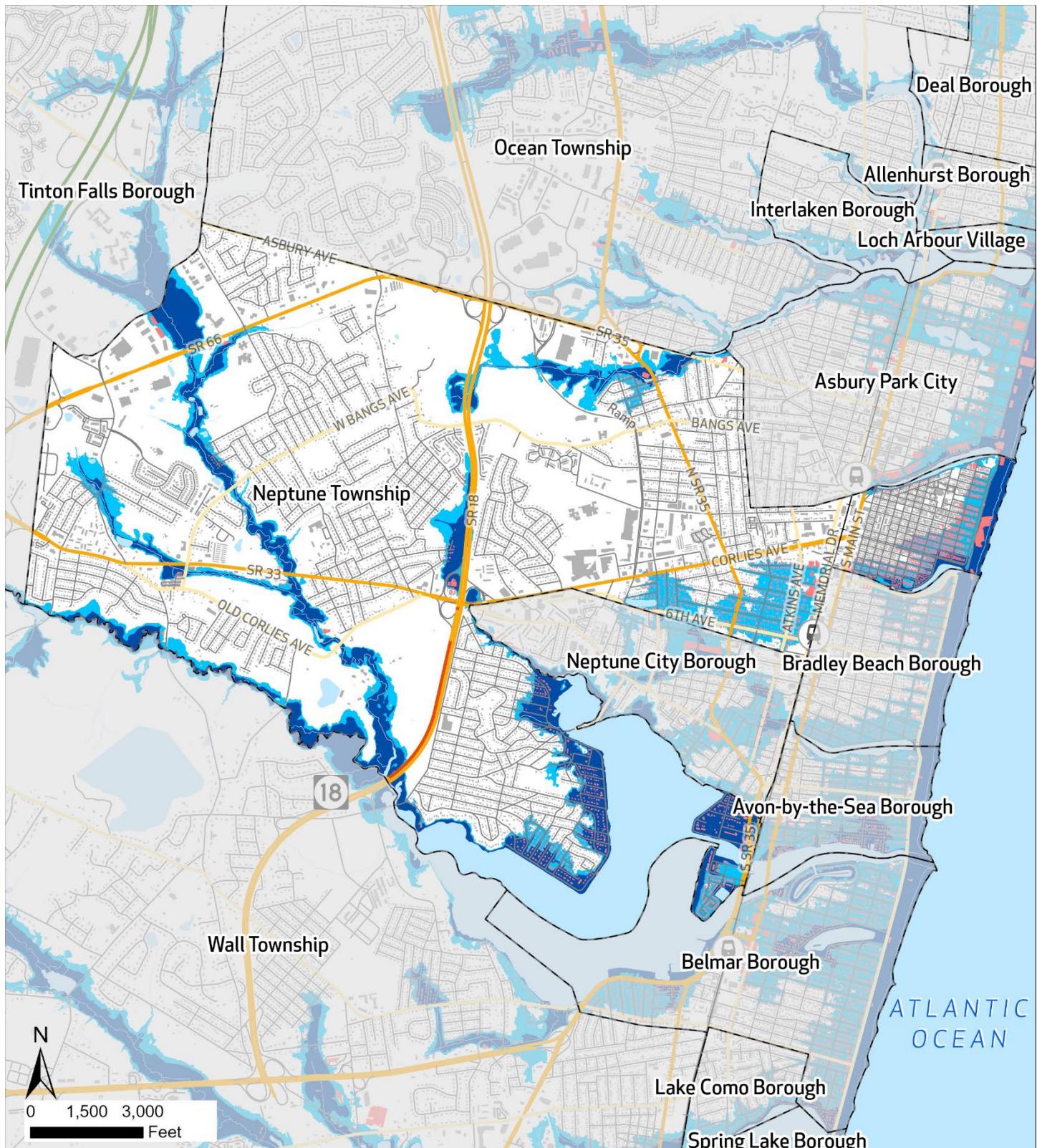
About 74.5 percent of Neptune Township is considered developed. Of the developed parcels of the town, 8.3 percent fall within the 1% annual chance flood zone and 1.6 percent are within the 0.2% annual chance flood zone. This illustrates that the developed area of the municipality is generally in line with overall flood risk.

	Percentage in the 1% Floodplain	Percentage in the 0.2% Floodplain	5 feet of Sea Level Rise
Developed Parcels	8.3%	1.6%	4.7%
Exposed Land Area	9.4%	1.2%	3.1%

During the planning process, Neptune Township identified critical facilities which function as community lifelines. These facilities provide the most fundamental services in the community that, when stabilized, enable all other aspects of society to function. The municipality identified 11 total facilities. Of these facilities, five are within floodplain. Of those five, one is also located in an area projected to be inundated under sea level rise.

Community Lifeline Type	Number in the 1% Floodplain	Number in the 0.2% Floodplain	Number within 5 feet of Sea Level Rise
Safety and Security	1	-	-
Transportation	1	-	1
Water Systems	3	-	-





NJ Inland Design Flood Elevation Neptune Township

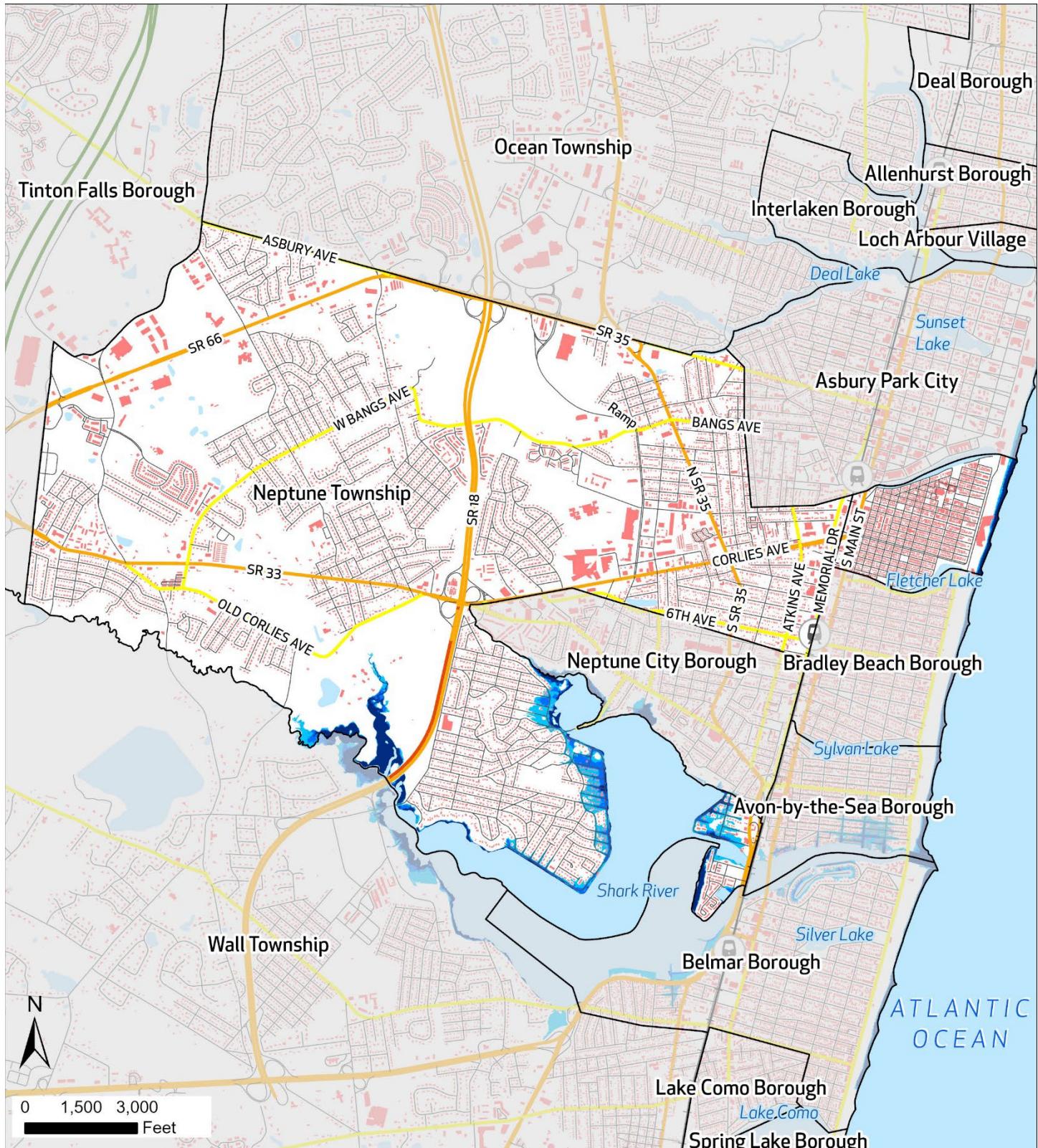
- FEMA Flood Zone
- Current Base Flood Elevation (1%)
- NJ Inland Design Flood Elevation
- FEMA BFE (1%) plus 3 Feet

- Interstate Highways
- State Routes
- County Routes
- Local Roads
- State Hwy
- Garden State Parkway

- Municipal Boundaries
- Water
- Building Footprints
- Building Footprints within IDEF



Source: FEMA, Rutgers University, NJDEP, NJOIT, NJTransit



Permanent Inundation Under Sea Level Rise (SLR) Scenarios

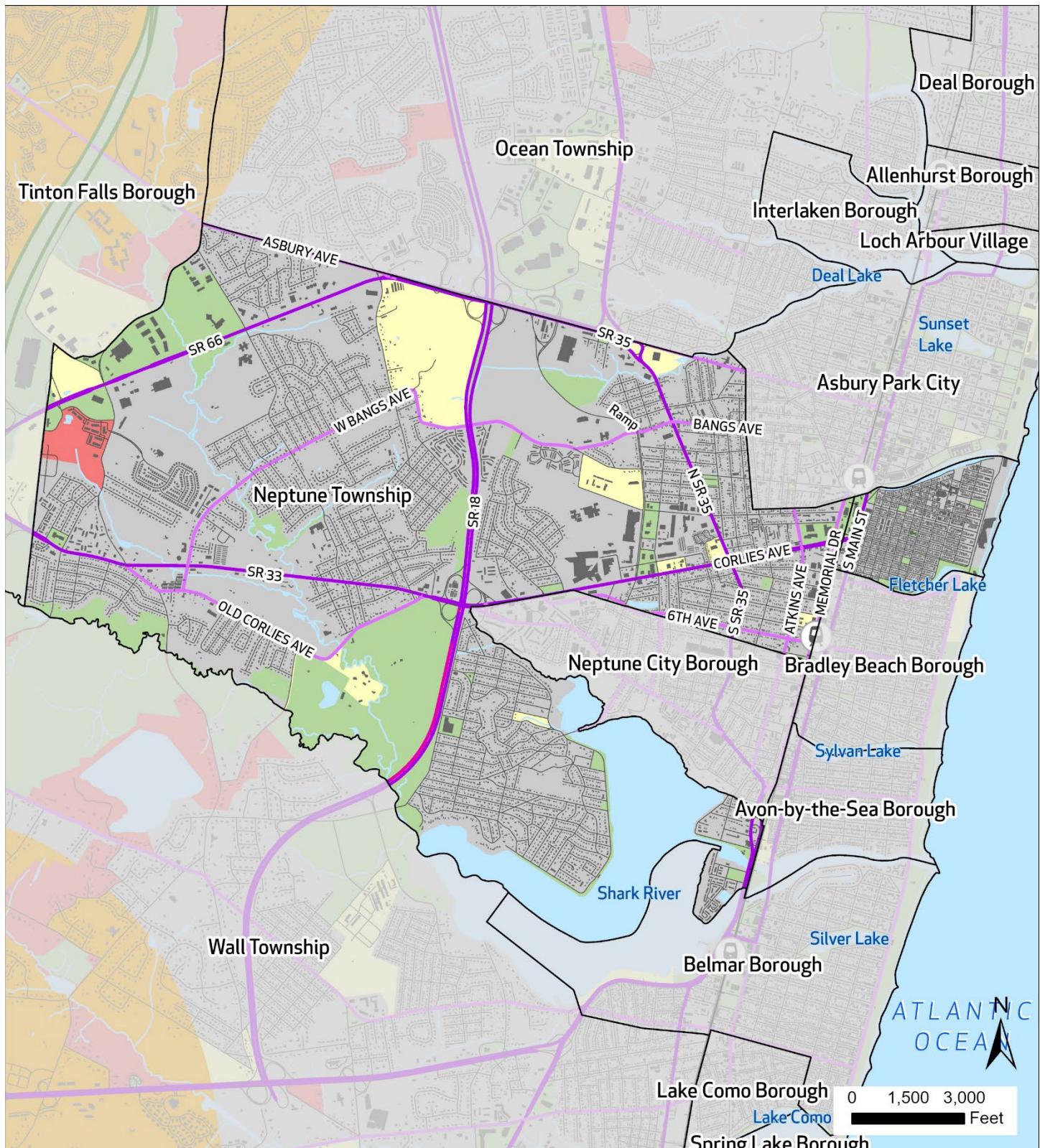
Neptune Township

- Area Inundated Under 2 Feet SLR
- Area Inundated Under 3 Feet SLR
- Area Inundated Under 5 Feet SLR
- Garden State Parkway
- Interstate Highways
- State Routes
- County Routes
- Local Roads
- Rail Lines

- Municipal Boundaries
- Building Footprint
- Water

NJTransit Rail Station

Source: NOAA, NJDEP, NJOIT, NJTransit



Wildland Urban Interface (WUI) Classification

Neptune Township

- Interface
- Intermix
- High or Medium Density Housing
- Low or Very Low Density Housing
- No Housing
- Garden State Parkway
- State Hwy
- Interstate Highways
- State Routes
- County Routes
- Local Roads
- Rail Lines

- Municipal Boundaries
- Building Footprint
- Water

Source: USFS, NJDEP, NJOIT, NJTransit

CAPABILITY ASSESSMENT

Planning & Regulatory Capabilities

Neptune Township has the following additional Planning & Regulatory capabilities:

Plan and Regulation	Yes	No	Date of last update	How does this capability support hazard mitigation?
Master Plan	X			
Capital Improvement Plan	X		2024	Yes, identifies projects that, if implemented, could reduce the impacts of natural hazards.
Local Emergency Operations Plan/Continuity of Operations Plan	X		2023	
Floodplain Development Ordinance	X		2022	Enforces higher freeboard or other standards.
Floodplain Management Plan		X	2023	
Stormwater Management Ordinance	X		2024	
Stormwater Management Plan		X		
Watershed Management Plan		X		
Sheltering Plan		X		
Evacuation Plan		X		
Substantial Damage/Improved Structures Response	X			<p>SUBSTANTIAL DAMAGE: damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed fifty (50%) percent of the market value of the structure before the damage occurred.</p> <p>SUBSTANTIAL IMPROVEMENT: any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds fifty (50%) percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage," regardless of the actual repair work performed.</p> <p>The term does not, however, include either:</p> <ul style="list-style-type: none"> a. Any project for improvement of a structure to correct existing violations of State or local health, sanitary or safety code specifications which have been identified by the local Code Enforcement Officer, and which are the minimum necessary to assure safe living conditions; or b. Any alteration of a "historic structure," if designated as a key structure and one that would be adversely affected in terms of historic character as determined by the Municipal Construction Official/Floodplain Administrator. Alteration of a "historic structure" shall not be considered a relocation.
Repetitive Loss Plan		X		
Disaster Debris Management Plan	X		2017	
Tracking elevation certificates and/or Letter of Map Change	X			Tracked using County software.
Post-Disaster Recovery Plan		X		
Current/recent redevelopment plans or studies				
Community Wildfire Protection Plan	X		TBD	In progress – being developed.
Climate Adaptation Plan		X		
Other Plans that discusses hazard mitigation	X			Part of the Regional Flood Mitigation Group that produces flood studies and ongoing mitigation projects.
Other ordinance and regulation that mitigate the impacts of natural hazards	X			Steep Slope

Administrative and Technical Capabilities

Neptune Township has the following Administrative and Technical capabilities:

Position	Yes	No	Explanation
Floodplain Administrator	X		Don Clare, Full time, Electrical Sub-Code Official and Asst Director of Code and Construction. Certified as a CFM
Grant Writer	X		Multiple experienced grant writers on staff.
Staff trained to support mitigation	X		
Existing mutual aid or technical assistance agreements to support hazard mitigation projects	X		Collaboration with Monmouth County.
Non-governmental organizations/other partners that work with the municipality on mitigation projects	X		Have worked with non-profits, the County, and others.
Organizations that work with socially vulnerable or underserved populations	X		Neptune Senior Center – have been involved in Hazard Mitigation planning/recovery. Fulfill Foodbank – has not been involved in the past.

Education and Outreach Capabilities

Neptune Township has the following Education and Outreach capabilities:

Education & Outreach Capability	Yes	No	Explanation
Communicate natural and human-based hazards to the public	X		Within the plan there are levels and methods of notification. By practice the LEPC is provided with routine messaging on a near daily basis. Messaging is upgraded to include community notifications pursuant to various OEM, Police, and local government policies and practices. Emergency notification of response personnel and the community is clearly delineated within the plan.
			Within the plan there are levels and methods of notification. By practice the LEPC is provided with routine messaging on a near daily basis. Messaging is upgraded to include community notifications pursuant to various OEM, Police, and local government policies and practices. The plan empowers certain department heads, including the Public Information Officers, Police Chief, Emergency Management Coordinator, Administrator and Mayor to make decisions regarding appropriate public messaging.
			In addition to initial training on Nixle®, PIO staff is involved in all actual deployments and training exercises. The next exercise is scheduled for September 27, 2022, and includes emergency responder and public messaging.
StormReady	X		
Firewise USA			
Severe Weather Awareness Week		X	
Community Rating System (CRS)	X		

Financial Capabilities

Within the last five years, Neptune Township has used the following financial capabilities to implement hazard mitigation activities:

Financial Capability	Yes	No	Explanation
FEMA BRIC	X		Grant Agreement in process
FEMA FMA	X		
FEMA Public Assistance	X		
FEMA HMGP	X		
Non-FEMA Federal Funding Programs	X		
Other FEMA resources	X		
NJ Infrastructure Bank		X	

Financial Capability	Yes	No	Explanation
Other state municipal assistance or grant programs	X		
Evaluation process on the prioritization of risk reduction projects against other local activities	X		All projects are evaluated by their overall benefit to the Township in general. Areas of prioritization include public safety, public health, cost, public benefit, timing, environmental impact, and protection of public resources.
Other ongoing efforts to build additional financial capabilities	X		The Township includes hazard mitigation projects in the annual capital improvement plans and makes grant submissions to support these improvements.

Additional Capability Assessment Information:

- Neptune Township is a Forerunner community. Forerunner has dynamic tools to better manage flood risk and increase resilience by enforcing floodplain compliance and increasing disaster response by documenting damages in the field and providing timely information to residents. Forerunner's public features give residents access to relevant property-level flood risk details that help inform key decisions and minimize the number of assistance requests. Forerunner is also designed to make CRS participation easier for the Township.
- Ongoing regional flood study in coordination with other jurisdictions and Monmouth County – to identify areas of flooding and coordinate potential solutions and mitigation actions.
- Township Engineer responsible for implementing Hazard Mitigation Actions
- Township Website has information on reducing vulnerability to natural hazards.

MITIGATION STRATEGY

Overview and Progress Since Last Plan Update

Since the last plan update in 2021, Neptune Township has prioritized infrastructure improvements to reduce flood risk, including the construction of living shorelines, bulkhead replacements, and stormwater management upgrades. Moving forward, the Township will focus on enhancing resilience through continued flood mitigation efforts, upgrades to critical infrastructure, and targeted property acquisitions in high-risk areas. These efforts aim to protect residents, reduce repetitive loss properties, and strengthen the community's ability to withstand future hazard events.

Completed or Removed Actions

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
Action 36-1	Purchase and Install a Generator at North Island Pump Station	Create elevated platform for new emergency generator to service pump station.	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge		Neptune Township Engineering Department/Neptune Sewer Department		\$18,500.00		Completed	
Action 36-2	Elevate 23 Flood-prone Properties, with a focus on Repetitive Loss and Severe Repetitive Loss Properties	Elevate 23 flood-prone residential properties, especially Repetitive Loss and Severe Repetitive Loss properties.	Flood, Hurricane and Tropical Storm, Storm Surge	High	Homeowners, Neptune Township Engineering Department, Neptune Township Administration	FEMA HMA	\$57,500.00	1 year	Withdrawn	<i>Withdrawn to combine with (ongoing) Action 36-08</i>
Action 36-3	Purchase and Install Generators for Critical Infrastructure	Generators for stormwater pumps and at the Township EOC center.	All Hazards	Low	Township	Municipal budget	\$150,000.00	2 years	Completed	<i>Now identify need for generator at library – for warming/cooling center. Opportunity for new mitigation action.</i>
Action 36-4	Reconstruct Deteriorating Bulkheads on S. Riverside Drive and Retrofit Stormwater Infrastructure	Reconstruct deteriorating bulkheads, extend drainage pipes, and retrofit storm drains with Tideflex valves.	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge	Medium	Neptune Township Engineering Department, Neptune Township Committee	FEMA HMA	\$2,500,000.00	5 + years	Withdrawn	<i>Withdrawn to prioritize Living Shoreline Project.</i>
Action 36-5	Retrofit Pump stations with Watertight	Retrofit existing pump stations in flood zones with watertight doors and/or windows.	Flood, Nor'easter, Hurricane and Tropical	Medium	Neptune Township Engineering Department/Neptune Sewer Department	FEMA HMA	\$200,000.00	2 years	Completed	

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
	Doors and/or Windows		Storm, Storm Surge							
Action 36-6	Update ArcGIS Online	Update ArcGIS online and publish on Township website to increase hazard awareness and evacuation routes.	Flood, Hurricane and Tropical Storm, Storm Surge	High	Neptune Township Engineering Department	FEMA HMA	\$2,000.00	1 year	Withdrawn	
Action 36-7	Construct a Living Shoreline along Seaview Island	Construct a living shoreline along the Seaview Island.	Wave Action, Nor'easter, Hurricane and Tropical Storm, Storm Surge	Medium	Township Engineering, DPW	FEMA HMA, The Nature Conservancy (TNC)	\$3,000,000	5 + years	Withdrawn	

New and Ongoing Actions

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
Action 36-8	De-snag and Desilt Wesley Lake	Remove/desilt the lake. In coordination with Asbury Park.	Flood, Hurricane and Tropical Storm, Storm Surge	Medium	Neptune Township Engineering Department	Municipal budget, State, and Federal Grants	\$1,500,000	5 + years	Ongoing	Requires ongoing coordination and funding. Reduces flood damage Reduces flooding in nearby socially vulnerable residential and commercial areas. Increased rainfall may accelerate sediment buildup.
Action 36-9	Construct an Elevated Bulkhead and a Living Shoreline Stabilization Around Wesley Lake, including repair of pedestrian bridges; elevated and reinforced west of western foot bridge.	Construct or elevate a structural or earth berm bulkhead around the lake along with a living shoreline.	Flood, Hurricane and Tropical Storm, Storm Surge	High	Neptune Township Engineering Department; Neptune Township Committee	FEMA HMA, The Nature Conservancy (TNC)	\$2,500,000	2 years	Ongoing	Requires ongoing coordination and funding. Reduces erosion and flood damage Reduces flooding in nearby socially vulnerable residential and commercial areas. Rising sea levels and stronger storms may increase stress on shoreline defenses

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
Action 36-10	Construct a Living Shoreline along Shark River	Construct a living shoreline along the Shark River in the Shark River Hills neighborhood, extending into Neptune City. Phase III will incorporate flood pumps to enhance flood resilience.	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge	Medium	Neptune Township Engineering Department	FEMA HMA, The Nature Conservancy (TNC)	\$6,000,000	1 year	Ongoing (Phase 1 of 3 is complete)	Requires ongoing coordination and funding Reduces coastal erosion and storm surge flooding Sea level rise and stronger storms may increase erosion and property damage
Action 36-11	De-snag and Desilt Fletcher Lake	Remove/desilt the lake.	Flood, Nor'easter, Hurricane and Tropical Storm	High	Township Engineering	Municipal budget, State, and Federal Grants	\$1,500,000	5 + years	Ongoing	Requires ongoing coordination and funding. Reduces flood damage Reduces flooding in nearby socially vulnerable residential and commercial areas. Increased rainfall may accelerate sediment buildup
Action 36-12	Construct an Elevated Bulkhead and a Living Shoreline Around Fletcher Lake	Construct or elevate a structural or earth berm bulkhead around the lake along with a living shoreline, needed at Clark Avenue to foot bridge west.	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Neptune Township Engineering Department; Neptune Township Committee	FEMA HMA, The Nature Conservancy (TNC)	\$2,500,000 (around \$1,000 per linear foot).	2 years	Ongoing	Requires ongoing coordination and funding. Reduces flood damage Reduces flooding in nearby socially vulnerable residential and commercial areas Sea level rise and stronger storms may increase erosion
Action 36-13	Establish and Install Warning System and Flood Gauges	Install flood gauges with warning lights in rivers and lakes in or near flood-prone areas, specifically along Shark River, Alberta Lake, and Fletcher Lake. Connect the flood gauges to automatically communicate warnings.	Flood, Hurricane and Tropical Storm, Storm Surge	Low	Engineering and Planning/OEM	Municipal budget, State, and Federal Grants	\$700,000	3 years	Ongoing	Requires ongoing coordination and funding. Improves early flood detection and response Provides advance warning to at-risk residents More frequent extreme weather events increase the need for real-time flood monitoring

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
Action 36-14	Acquire and Demolish or Relocate Buildings and Infrastructure in flood-prone areas, with a focus on Repetitive Loss (RL) and Severe Repetitive Loss (SRL) properties. Elevate properties with focus on RL, SRL.	Identify and target properties of willing sellers in Special Flood Hazard Areas or flood-prone areas, especially Repetitive Loss and Severe Repetitive Loss properties, and obtain appraisals and funding for acquisition. Upon acquisition, maintain as dedicated open space.	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Neptune Township Administration	FEMA HMA	\$1,200,000	3 years	Ongoing	Requires ongoing coordination and funding. Reduces flood damage and repetitive loss claims Protects residents in high-risk flood areas Increasing flood frequency makes this action more critical
Action 36-15	De-snag and Desilt Hallow Brook	Removal of dense overgrown vegetation, dead fallen trees, silt, and sediment from Hallow Brook	Flood, Nor'easter, Hurricane and Tropical Storm	Low	Township Engineering, DPW	Municipal budget, State, and Federal Grants	\$1,000,000	5 + years	Ongoing	Requires ongoing coordination and funding. Reduces blockages that cause flooding helps prevent localized flooding in residential areas Heavier rainfall may accelerate sediment buildup
Action 36-16	Target Harden Critical Facilities by Installing Surveillance Cameras, Barriers, Window Film, an Access Control System, and/or Bulletproof Glass	Install and improve surveillance equipment and CCTV, barriers, bulletproof glass, access control, window film on entrance-facing access points, and surveillance footprints on the ground for Township schools and municipal buildings.	Terrorism	Medium	Neptune Township, Neptune Township School System	Homeland Security grants	\$2,000,000	5 years	Ongoing	Requires ongoing coordination and funding. Reduces vulnerability to attacks and unauthorized access

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
Action 36-17	De-snag and Desilt Alberta Lake	Remove/desilt the lake.	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge	Medium	Neptune Township Engineering Department; Neptune Township Committee	Municipal budget, State, and Federal Grants	\$1,500,000	5 + years	Ongoing	Requires ongoing coordination and funding. Reduces flood damage Reduces flooding in nearby socially vulnerable residential areas. Increased rainfall may accelerate sediment buildup
Action 36-18	De-snag and Desilt the Shark River Tributary, Jumping Brook, and Musquash Brook	Removal of dense overgrown vegetation, dead fallen trees, silt, and sediment from the Shark River Tributary, Jumping Brook, and Musquash Brook.	Flood, Hurricane and Tropical Storm, Storm Surge	Low	Neptune Township, Neptune City, Wall, Belmar, and NJDEP	Municipal budget, State, and Federal Grants	\$4,000,000	5 + years	Ongoing	Requires ongoing coordination and funding. Reduces blockages that cause flooding helps prevent localized flooding in residential areas Heavier rainfall may accelerate sediment buildup
Action 36-19	Create a Permanent Confined Disposal Facilities (CDF) and Structural Earthen Berm	Identify and target properties that have the characteristics that can be used for a Confined Disposal Facility (CDF) and construct an Earthen Berms out of materials and form a stable slope. Berm to be stabilized with seed.	Flood, Hurricane and Tropical Storm, Storm Surge	Low	Engineering and Planning	Municipal budget, State, and Federal Grants	\$350,000	2 years	Ongoing	Requires ongoing coordination and funding. Reduces flood impacts and manages dredged material Rising sea levels may increase demand for flood protection.
Action 36-20	Desilt and Dredge Shark River	Dredge or pump siltation from entire Shark River Basin to Confined Disposal Facility (CDF).	Flood, Hurricane and Tropical Storm, Storm Surge	Medium	Neptune Township, Neptune City, NJDEP, Wall, Belmar, NJDOT	Municipal budget, State	\$10,000,000	5 years	Ongoing	Requires ongoing coordination and funding. Improves drainage and reduces flood impacts Mitigates flooding in nearby socially vulnerable communities Increased sedimentation from stronger storms may require ongoing dredging

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
Action 36-21	Create Hazard Overlay Zones and Update ArcGIS Online	Work with GIS Consultant and in-house staff to overlay Special Flood Hazard Zones on Township Maps. Distribute as handouts to residents at Neptune Day, at Township counters, and to Homeowners Associations in Special Flood Hazard Zones. Update ArcGIS online and publish on Township website to increase hazard awareness and evacuation routes.	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge	Low	Neptune Township Engineering Department/GIS Consultant	Municipal budget	\$12,000	1 year	Ongoing	Requires ongoing coordination and funding. Increases awareness of flood hazards and evacuation routes Improves access to critical hazard information Changing flood zones may require future updates.
Action 36-22	Purchase Stormwater Pumps and Appurtenances	Purchase stormwater pumps and appurtenances to reduce flood risk in the special flood hazard area.	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge	Low	Neptune Township Engineering Department, DPW	Municipal budget, State, and Federal Grants	\$2,000,000	1 year	Ongoing	Requires ongoing coordination and funding. Reduces flooding by improving stormwater management Protects flood-prone neighborhoods. Increased rainfall and storm intensity will heighten demand for pumping capacity
Action 36-23	Conduct a regional flood study and identify projects coming from study.	An ongoing multi-jurisdictional flood study will allow Township to identify flood areas, prioritize projects, and define mitigation solutions	Flood	High	Multi-jurisdictional, Neptune Township.	State Grant	\$100,000	1 year	New	Identifies and prioritizes flood mitigation projects Helps target solutions for high-risk communities Changing flood patterns may influence mitigation strategies

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
		related to Township flooding.								
Action 36-24	Forest Fire Management Plan	Develop a forest fire management plan for defensible areas of the Township. Targeted areas of concern include wooded area behind Beverly Way, around the Garden State Parkway/66, and Oceanview Electrical Station with overhead wires.	Fire	High	Neptune Township	Municipal budget, State, and Federal Grants	\$50,000	2 years	New	Lowers wildfire risk and protects critical infrastructure Reduces fire hazards in socially vulnerable residential areas Increasing temperatures and drought conditions may heighten fire risk.
Action 36-25	Neptune Library Generator Project	Install an emergency backup generator at the Neptune Library to ensure reliable power during outages, allowing it to function as a community cooling and heating center.	Extreme temperature	High	Neptune Township	Municipal budget, State, and Federal Grants	\$425,000	2 years	New	Provides emergency power to protect residents from extreme temperatures Offers a safe heating and cooling center for at-risk residents Increasing heat waves and extreme cold events make this facility more essential.
Action 36-26	Neptune Municipal Court	Enhance security at Neptune Municipal Court by installing reinforced entry points, access controls, and surveillance systems to reduce vulnerability to security threats.	Terrorism and Security Threats	Medium	Neptune Township	Municipal budget, State, and Federal Grants	\$500,000	2 years	New	Reduces the threat of unauthorized access and attacks

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
Action 36-27	Alberta Lake Flood Pumps	Install flood pumps at Lake Alberta to improve stormwater management and reduce flooding in surrounding residential areas.	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Neptune Engineering	Municipal budget, State, and Federal Grants	\$2,000,000	3 years	New	Reduces flooding and improves stormwater drainage Protects nearby socially vulnerable residential areas from flood damage and evacuation Increased rainfall and storm intensity will heighten demand for flood control
Action 36-28	Alberta Lake Shoreline Stabilization	Stabilize the shoreline at Lake Alberta to prevent erosion, protect water quality, and enhance the lake's natural resilience.	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Neptune Engineering	Municipal budget, State, and Federal Grants	\$500,000	2 years	New	Reduces flooding and improves stormwater drainage Protects nearby socially vulnerable residential areas from flood damage and evacuation Increased rainfall and storm intensity will heighten demand for flood control
Action 36-29	Alberta Lake Drainage Capacity Improvements	Upsize the piping network at Lake Alberta to improve flow capacity, reduce restrictions, and enhance stormwater management.	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Neptune Engineering	Municipal budget, State, and Federal Grants	\$1,000,000	2 years	New	Reduces flooding and improves stormwater drainage Protects nearby socially vulnerable residential areas from flood damage and evacuation Increased rainfall and storm intensity will heighten demand for flood control
Action 36-30	BPU/Microgrid Infrastructure	Develop a community microgrid using solar, battery storage, and generators to support critical facilities.	Power Failure, Hurricane/Tropical Storm/Nor'easter, Flood	High	Neptune Engineering / OEM	Municipal budget, State, Federal Grants, and Public-Private Partnerships	\$12,000,000	3 years	New	Improves energy resilience and reliability for critical municipal facilities Reduces service disruptions during power failures, hurricanes, and severe storms Increased storm intensity and grid instability heighten need for local backup power