

23 – KEANSBURG BOROUGH

PLANNING TEAM AND PARTICIPATION

Name	Title	Participation
Chris Hoffe	OEM Coordinator	Point of Contact, Municipal Workshop 10/28/2024
Ginger Rogan	Deputy OEM Coordinator	Municipal Workshop 10/28/2024
Robert F Yuro, PE	T&M Associates – Borough Engineer	Reviewed appendix

COMMUNITY PROFILE

Overview

Coined the “Gem of the Bayshore,” the Borough of Keansburg is 0.95 square miles on the Raritan Bay. With over two miles of beachfront, Keansburg contains the longest stretch of publicly accessible waterfront in the Bayshore region. Commercial activity is primarily located in the Borough’s downtown and waterfront areas, with the main attractions being Keansburg Amusement and Runaway Rapids Waterpark.

Due to Keansburg’s flat topography, the storm surge from Superstorm Sandy breached the protective dunes along Raritan Bay causing significant flooding and damaging approximately 1,500 properties. In 2018, a 186-unit mixed-use mixed-income rental apartment complex on Beachway Avenue was completed. The project includes commercial space and a public plaza overlooking Raritan Bay. It received funding from the Fund for Restoration of Multifamily Housing program, which was created in response to Superstorm Sandy. The program provides developers with low interest loans to finance the construction of affordable housing.

In July of 2020, Keansburg adopted a redevelopment study and preliminary investigation report that was prepared for a 15-acre area located at the northern end of Carr Avenue, which was significantly damaged by Sandy. Rebuilding initiatives have included repairing the Borough’s police station, beach replenishment, waterfront dredging, and building earthen levees.

In the fall of 2020, graduate students from the Bloustein School at Rutgers University completed the “A More Resilient Keansburg” report that is intended to help the Borough develop a municipal resilience plan. The report includes a flood risk assessment highlighting the areas in Keansburg most at-risk to flooding, a social vulnerability assessment, as well as an evaluation of whether Keansburg’s vulnerable populations face different risks from coastal flooding as compared to the community as a whole. \$3.2 million in disaster relief funding has been allocated for flood control re-evaluation for projects in Keansburg and its neighboring communities.

Land Use, Development, & Growth

Keansburg is a predominantly residential community and most of its land is developed. From 2015 to 2020, urban or developed land accounted for nearly 83 percent of its total area, while wetlands and barren land accounted for 10 percent and five percent respectively. Since 2015, although agricultural land, wetlands and water bodies declined marginally, the overall land use composition has remained largely the same.

Land Use Type	Total Acres (2015)	Total Acres (2020)	Percent Change
Agriculture	-	-	-
Barren Land	52.9	35.1	-34%
Forest	8.0	8.0	>0%
Urban	641.0	646.3	1%
Water	15.3	11.6	-24%
Wetlands	59.3	75.5	27%

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

Recent Major Development and Infrastructure from 2020 to Present

In July 2021, Keansburg adopted a redevelopment study and a preliminary investigation report for a 15-acre area located at the northern end of Carr Avenue, which was significantly damaged by Superstorm Sandy. Rebuilding initiatives have included repairing the Borough's police station, beach replenishment, waterfront dredging, and building earthen levees. The redevelopment plans indicate the construction of 700 luxury apartment units, 45,000 square feet of restaurant, entertainment and retail space, and 1,000 parking spaces to Carr and Beachway Avenues. The County turned over jurisdiction of the northerly section of Carr Avenue to the Borough, thus allowing redevelopment in this area to closely follow the existing, narrow road configuration. In addition, Keansburg welcomed several new restaurants and a brewery to its waterfront district. Notably, 20 homes in the Borough were elevated and 3 buildings in Beachway were raised above basic flood elevation. Nearly the entire Borough falls within FEMA's 1% and 0.2% annual chance floodplain zone, and NJ Inland Design Flood Elevation which is FEMA's 1% annual chance floodplain + 3 feet (NJFloodMapper).

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

One building is planned at Carr Avenue. Eight additional buildings near Carr Avenue are in the works. These will be mixed use and built to minimize damage per NFIP and state standards.

Demographics & Vulnerable Populations

This plan analyzed census-derived data on population trends and population age distributions to help illustrate potential vulnerability within the Borough. 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).

The Borough of Keansburg has a total estimated population of 9,761. The Borough's residents are estimated to be 3.1% under 5 years old, and 12.8% over age 65. Keansburg saw a slight population decline over the periods between 2013-2017 and 2018-2022, losing an estimated -1.1% of its population. With an aging population making up nearly thirteen percent of their total community, Keansburg 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.

There are five block groups meeting criteria as overburdened (OBC) according to the state of New Jersey, with two block groups identified as *Low Income* and three block groups identified as home to *Low Income and Minority* populations which may be overburdened. There is one tract identified by CEJST criteria of *Climate Change, Housing, Transportation, Water and Wastewater*, and *Workforce Development* characteristics.

Demographics Summary	
Total Population (2018-2022 ACS 5-year Estimates)	9,761
Population Change since 2017	-1.1%
Percent of Population Age < 5	3.1%
Percent of Population > 65	12.8%

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 Borough'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	Extreme Temperature	Lightning
Nor'easter	Extreme Wind	Drought
Flood	Tornado	Earthquake
Storm Surge	Winter Storm	Wildfire
	Coastal Erosion	
	Wave Action	
Human-made Hazards		
	Cyber Attack	Civil Unrest
	Economic Disruption	Power Failure
	Terrorism	
	Pandemic	

Hazard Ranking Explanation

Due to the location of the Borough of Keansburg, the highest ranked hazards are hurricanes, tropical storms, nor'easters, floods, and storm surges. These hazards can cause significant damage to infrastructure, disrupt daily life, and pose severe risks to public safety. Comprehensive emergency plans and community preparedness initiatives are essential to mitigate their impact effectively.

Significant Hazard Events Since Last Plan Update

There have not been any significant events since the last plan update. However, the Borough of Keansburg remains vigilant and continues to enhance its emergency response strategies.

Climate Change Impacts on Extent and Magnitude of Hazards

Climate change is expected to significantly impact the risks and hazards faced by Keansburg Borough. As global temperatures rise, the frequency and intensity of extreme weather events such as hurricanes, nor'easters, and extreme temperatures are likely to increase. This will exacerbate existing vulnerabilities, particularly in flood-prone areas. Keansburg's flat topography and extensive beachfront make it especially susceptible to storm surges and coastal flooding, as evidenced by the significant damage caused by Superstorm Sandy. The Borough's infrastructure, including critical facilities located within floodplains, will face heightened risks of damage and disruption. Additionally, the aging population in Keansburg may experience increased health risks during extreme weather events, necessitating robust evacuation plans and resilient networks for resource accessibility.

Moreover, climate change will likely lead to more frequent and severe droughts, which can strain water resources and increase the risk of wildfires. The Borough's efforts to balance residential development with public safety will become more challenging as the impacts of climate change intensify. Proactive measures, such as enhancing stormwater management systems, protecting critical facilities, and improving communication and education on hazard risks, will be essential to mitigate the adverse effects of climate change on Keansburg Borough.

RISK ASSESSMENT

National Flood Insurance Program (NFIP) statistics

Keansburg Borough	
Initial FIRM	5/16/1983
Effective FIRM	9/25/2009
Number of Policies In-Force:	1228
Total Losses:	1343
Total Payments:	\$50,584,540.02
Number of RL Properties:	38
Number of Mitigated RL Properties:	0
RL – Total Losses:	79
RL – Total Paid:	\$1,623,363.64
Number of SRL Properties:	1
Number of Mitigated SRL Properties:	0
SRL – Total Losses:	2
SRL – Total Paid:	\$188,573.91

Source: FEMA Policy and Loss Data, August 2024

Vulnerability of the Built Environment

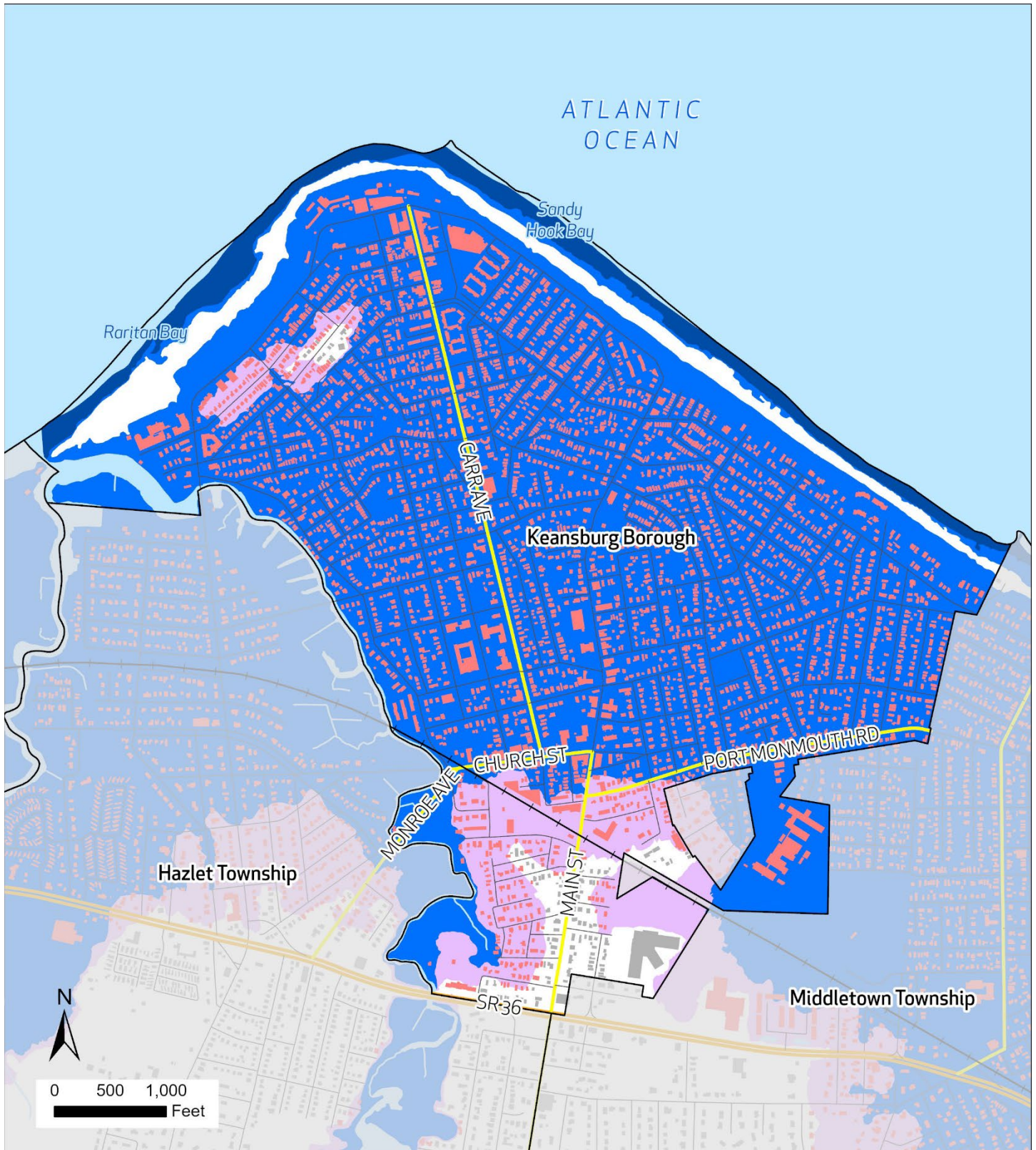
The majority of the Borough of Keansburg lies within the Special Hazard Flood Area (SFHA). Approximately 83 percent of the total area of Keansburg lies within the 1% annual chance flood zone as defined by FEMA. An additional 8.6 percent of the area of the municipality is in the 0.2% annual chance flood zone.

About 79.6 percent of Keansburg is considered developed. Of the developed parcels of the town, 84.7 percent fall within the 1% annual chance flood zone and 6.0 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	84.7%	6.0%	73.4%
Exposed Land Area	83.0%	8.6%	49.4%

During the planning process, Keansburg 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 12 total facilities. Of these facilities, 11 are located within the floodplain. Of these 11, three are also located within the 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
Health and Medical	1	-	-
Safety and Security	9	1	3



Flood Risk

Keansburg Borough

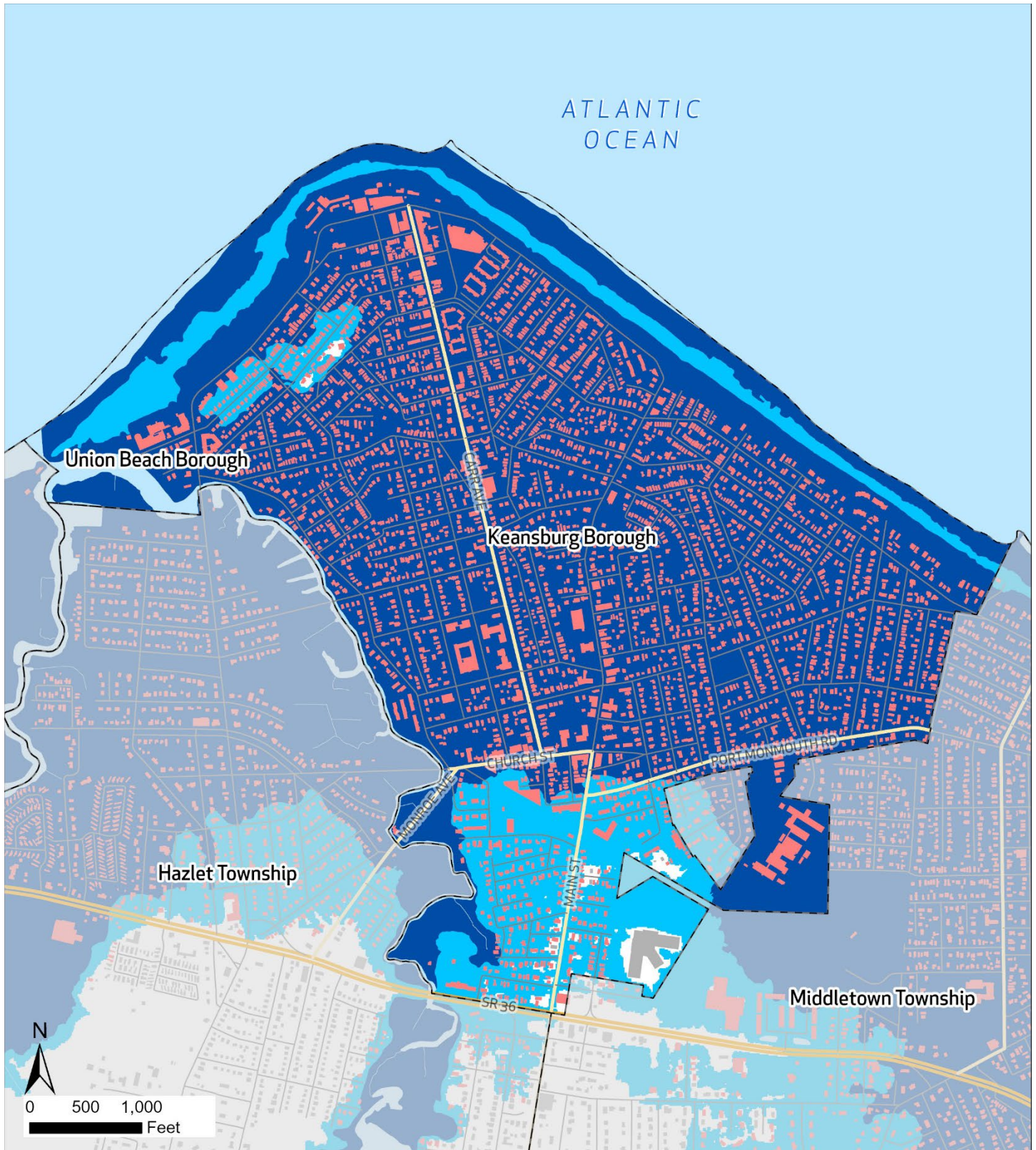
FEMA Flood Zone

- 0.2% Annual Chance
- AE (1%)
- VE (1%)

- State Routes
- County Routes
- Local Roads
- Rail Lines

- Municipal Boundaries
- Building Footprints
- Building Footprints within Floodplain
- Water

Source: FEMA NJDEP, NJOIT, NJTransit



NJ Inland Design Flood Elevation Keansburg Borough

FEMA Flood Zone

Current Base Flood
Elevation (1%)

NJ Inland Design Flood
Elevation

FEMA BFE (1%) plus 3
Feet

State Routes

County Routes

Local Roads

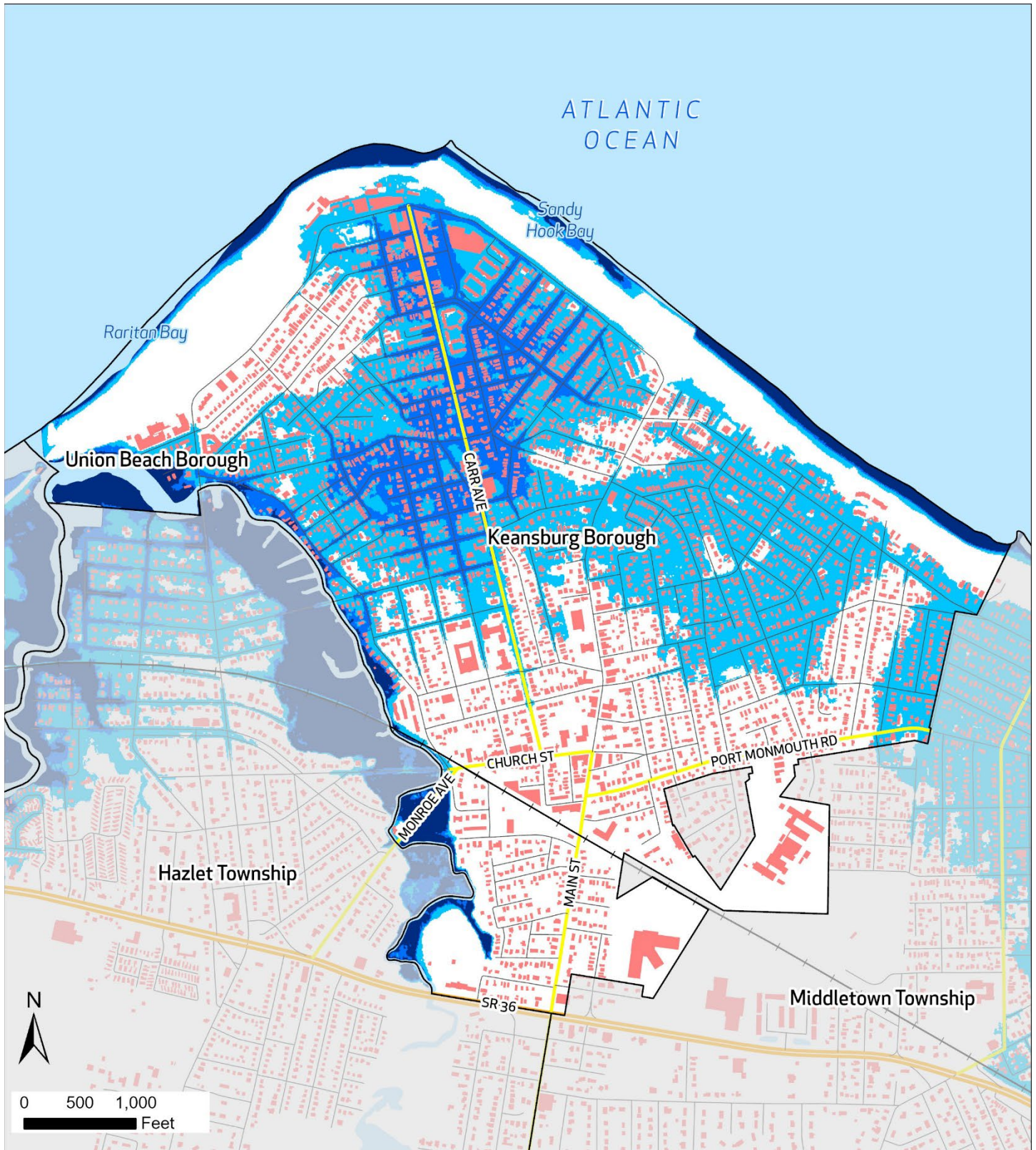
Municipal Boundaries

Water

Building Footprints

Building Footprints within
IDFE

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



**Permanent Inundation
Under Sea Level Rise
(SLR) Scenarios**
Keansburg Borough

- Area Inundated Under 2 Feet SLR
- Area Inundated Under 3 Feet SLR
- Area Inundated Under 5 Feet SLR

- Interstate Highways
- State Routes
- County Routes
- Local Roads
- Rail Lines

- Municipal Boundaries
- Building Footprint
- Water

Source: NOAA, NJDEP, NJOIT, NJTransit



Wildland Urban Interface (WUI) Classification

Keansburg Borough

- | | |
|---|--|
| Intermix | State Routes |
| High or Medium Density Housing | County Routes |
| Low or Very Low Density Housing | Local Roads |
| No Housing | Rail Lines |

- | |
|--|
| Municipal Boundaries |
| Building Footprint |
| Water |

Source: USFS, NJDEP, NJOIT, NJTransit

CAPABILITY ASSESSMENT

Planning & Regulatory Capabilities

Keansburg Borough 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		
Local Emergency Operations Plan/Continuity of Operations Plan		X		
Floodplain Development Ordinance		X		
Floodplain Management Plan	X		2015	This plan is intended to identify and assess flood hazards within the Borough of Keansburg, establish goals and objectives for floodplain management, and to present a series of actions designed to minimize flooding.
Stormwater Management Ordinance	X		2021	
Stormwater Management Plan	X		2006	
Watershed Management Plan		X		
Sheltering Plan		X		
Evacuation Plan		X		
Substantial Damage/Improved Structures Response		X		
Repetitive Loss Plan		X		
Disaster Debris Management Plan		X		
Tracking elevation certificates and/or Letter of Map Change		X		
Post-Disaster Recovery Plan		X		
Current/recent redevelopment plans or studies		X		
Community Wildfire Protection Plan		X		
Climate Adaptation Plan		X		
Other Plans that discusses hazard mitigation	X			See Additional Capability Assessment Information
Other ordinance and regulation that mitigate the impacts of natural hazards		X		

Administrative and Technical Capabilities

Keansburg Borough has the following Administrative and Technical capabilities:

Position	Yes	No	Explanation
Floodplain Administrator		X	
Grant Writer		X	
Staff trained to support mitigation		X	
Existing mutual aid or technical assistance agreements to support hazard mitigation projects		X	
Non-governmental organizations/other partners that work with the municipality on mitigation projects		X	

Position	Yes	No	Explanation
Organizations that work with socially vulnerable or underserved populations		X	

Education and Outreach Capabilities

Keansburg Borough has the following Education and Outreach capabilities:

Education & Outreach Capability	Yes	No	Explanation
Communicate natural and human-based hazards to the public	X		The Borough website has information on flooding and stormwater, including a link to elevation certificates (https://keansburgnj.withforerunner.com/properties); Know your flood hazard; Insure your property for your flood hazard; Protect people and property from the hazard (storm preparedness); Build responsibly; After the storm; and Protect natural floodplain functions.
StormReady		X	
Firewise USA		X	
Severe Weather Awareness Week		X	
Community Rating System (CRS)		X	

Financial Capabilities

Within the last five years, Keansburg Borough has used the following financial capabilities:

Financial Capability	Yes	No	Explanation
FEMA BRIC		X	
FEMA FMA		X	
FEMA Public Assistance	X		Covid 19 Disaster Management Costs
FEMA HMGP	X		FMA Pre-disaster. Residential elevations
Non-FEMA Federal Funding Programs		X	
Other FEMA resources		X	
NJ Infrastructure Bank		X	
Other state municipal assistance or grant programs		X	
Evaluation process on the prioritization of risk reduction projects against other local activities		X	
Other ongoing efforts to build additional financial capabilities		X	

Additional Capability Assessment Information:

- In the fall of 2020, graduate students from the Bloustein School at Rutgers University completed the “A More Resilient Keansburg” report that is intended to help the Borough develop a municipal resilience plan. The report includes a flood risk assessment, and a social vulnerability assessment. \$3.2 million in disaster relief funding has been allocated for flood control re-evaluation for projects in Keansburg and its neighboring communities.
- In February 2023, the U.S. Army Corps of Engineers (USACE) and the New Jersey Department of Environmental Protection announced the initiation of the Raritan Bay and Sandy Hook Bay Coastal Storm Risk Management (CSRM) Feasibility Study. The study will focus on measures including, but not limited to, beach renourishment, dune and beachfill profile changes, potential structural and non-structural measures to reduce risk of damages from coastal storm events, including hurricanes and nor’easters, and modifications to the existing project to provide improved erosion control and storm damage prevention in the project area.
- Keansburg Borough is a Forerunner community. Forerunner has dynamic tools to better manage flood risk and increase resilience. 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 Borough.

Community Rating System (CRS) Classification: 7

Sustainable Jersey Participation Status: Registered

MITIGATION STRATEGY

Overview and Progress since Last Plan Update

Keansburg needs sand replenishment. After Sandy, USACE had replenished the sand once, but there is need for more replenishment. In Lower Carr Ave/Beachway, there is concern that a building near a construction pit that fills with up water during heavy rainfall would fall in. However, there is a plan in the works to fill in/develop the pit and install pumps. Waacaack Creek needs dredging and bigger pumps. As a result, during high tide, flapper valves are blocked by debris causing 99% of the Borough to flood. The new pipes are perhaps too efficient for the current pumps, so the Borough needs better pumps. The Borough is looking for grants to assist with the dredging and pump installation. The floodgate in the Borough is owned by the State.

Since 2021, The Borough has relocated the Police Headquarters and Emergency Operation Center out of Flood Area, developed a Variance Plan, developed Hazard Mitigation Outreach Program, and bonded for considerable improvements to the local roadway network. They have also advanced purchasing new equipment and constructing a 2 million gallon storage tank to increase flood retention capabilities within the Borough.

Completed or Removed Actions

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Funding	Cost Estimate	Timeline	Action Status
23-1	Relocate the Police Headquarters and Emergency Operation Center out of Flood Area	Relocate the police headquarters and emergency operation center from 179 Carr Avenue to a vacant property in the Borough.	Flood, Extreme Wind, Nor'easter, Hurricane and Tropical Storm, Storm Surge	N/A	N/A	Funded through FEMA Grant and Municipal Bonds		N/A	Completed
23-2	Develop a Variance Plan	Develop a plan to allow variances on foundations of newly built structures.	Flood, Extreme Wind, Nor'easter, Hurricane and Tropical Storm, Storm Surge	N/A	N/A	Municipal Budget	\$20,000	N/A	Completed
23-3	Develop Hazard Mitigation Outreach Program	Create an outreach program to help residents prepare for disasters.	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge	N/A	N/A	Municipal Budget	\$10,000	N/A	Completed
23-4	Reconstruct Randall Place	Improve road conditions on Randall Place.	All Hazards	N/A	Mayor and Council, Borough Administrator, DPW, Borough Engineer	Municipal Bond – grouped with several other roads – total cost \$1.3M	\$189,000	N/A	Completed
23-5	Reconstruct Maple Avenue	Improve road conditions on Maple Avenue.	All Hazards	N/A	Mayor and Council, Borough Administrator,	NJDOT Local Aid Grant and Municipal Bond	\$330,000	N/A	Completed

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Funding	Cost Estimate	Timeline	Action Status
					DPW, Borough Engineer				
23-6	Reconstruct Grove Place	Improve road conditions on Grove Place.	All Hazards	N/A	Mayor and Council, Borough Administrator, DPW, Borough Engineer	Municipal Bond – grouped with several other roads – total cost \$1.3M	\$252,000	N/A	Completed
23-7	Reconstruct Woodside Avenue - Phase 1	Improve road conditions on Woodside Avenue.	All Hazards	N/A	Mayor and Council, Borough Administrator, DPW, Borough Engineer	Municipal Bond – grouped with several other roads – total cost \$1.3M	\$132,000	N/A	Completed
23-8	Reconstruct Woodside Avenue - Phase 2	Improve road conditions on Woodside Avenue.	All Hazards	N/A	Mayor and Council, Borough Administrator, DPW, Borough Engineer	Municipal Bond – grouped with several other roads – total cost \$1.3M	\$204,000	N/A	Completed
23-9	Reconstruct Lawrence Avenue	Improve road conditions on Lawrence Avenue.	All Hazards	N/A	Mayor and Council, Borough Administrator, DPW, Borough Engineer	Municipal Bond – grouped with several other roads – total cost \$1.3M	\$100,000	N/A	Completed
23-10	Reconstruct Myrtle Avenue	Improve road conditions on Myrtle Avenue.	All Hazards	N/A	Mayor and Council, Borough Administrator, DPW, Borough Engineer	Municipal Bond – grouped with several other roads – total cost \$1.3M	\$270,000	N/A	Completed
23-11	Reconstruct Forest Avenue -Phase 1	Improve road conditions on Forest Avenue.	All Hazards	N/A	Mayor and Council, Borough Administrator, DPW, Borough Engineer	Municipal Bond – grouped with several other roads – total cost \$1.5M	\$300,000	N/A	Completed
23-12	Reconstruct Forest Avenue -Phase 2	Improve road conditions on Forest Avenue.	All Hazards	N/A	Mayor and Council, Borough Administrator,	Municipal Bond – grouped with several other roads – total cost \$1.5M	\$230,000	N/A	Completed

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Funding	Cost Estimate	Timeline	Action Status
					DPW, Borough Engineer				
23-13	Reconstruct Murray Lane	Improve road conditions on Murray Lane.	All Hazards	N/A	Mayor and Council, Borough Administrator, DPW, Borough Engineer	Municipal Bond – total cost \$50,000	\$80,000	N/A	Completed
23-14	Reconstruct Inlet on Seeley Avenue	Improve drainage on Seeley Avenue by reconstructing the inlet and repairing the pavement and sidewalk.	Flood, Coastal Erosion, Extreme Wind, Nor'easter, Hurricane and Tropical Storm, Storm Surge	N/A	Mayor and Council, Borough Administrator, DPW, Borough Engineer	Municipal Bond and CDBG Grant – total cost \$250,000	\$210,000	N/A	Completed
23-15	Replace Piping at Willis Avenue & Park Avenue	Replace the pipe and repair the pavement and sidewalk at the intersection of Willis Avenue and Park Avenue.	Flood, Extreme Wind, Nor'easter, Hurricane and Tropical Storm, Storm Surge	N/A	Mayor and Council, Borough Administrator, DPW, Borough Engineer	Municipal Bond – grouped with several other roads – total cost \$1.5M	\$210,000	N/A	Completed
23-16	Construct/Rehabilitate a Two Million Gallon Storage Tank	Improve water and sewer capacity by constructing a two-million-gallon storage tank.	Flood, Extreme Wind, Nor'easter, Hurricane and Tropical Storm, Storm Surge	N/A	Mayor and Council, Borough Administrator, DPW, Borough Engineer	Municipal Bond		N/A	Completed
23-17	Replace Pressure Filter in Water Plant	Improve stormwater and sewer systems and reduce flooding by replacing the pressure filter in water plant.	Flood, Extreme Wind, Nor'easter, Hurricane and Tropical Storm, Storm Surge	N/A	Mayor and Council, Borough Administrator, DPW, Borough Engineer	Municipal Bond		N/A	Completed
23-18	Purchase a New Sweeper Vac	Purchase one new sweeper vac to maintain streets and keep debris from entering stormwater and sewer pipes.	Flood, Extreme Wind, Nor'easter, Hurricane and Tropical Storm, Storm Surge	N/A	Mayor and Council, Borough Administrator, DPW, Borough Engineer	Municipal Bond	\$225,000	N/A	Completed

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Funding	Cost Estimate	Timeline	Action Status
23-19	Purchase New Wave Runners	Purchase two new wave runners to improve emergency water rescue response.	All Hazards	N/A	Mayor and Council, Borough Administrator, DPW, Borough Engineer	Volunteer Fire Assistance Grant, Fire Company and EMS Grant, Borough funding	\$35,000	N/A	Completed
23-20	Purchase Two New Trucks for Water/Sewer Department	Purchase two new trucks for the Water/Sewer Department to assist with ongoing Water/Sewer maintenance.	Flood, Extreme Wind, Nor'easter, Hurricane and Tropical Storm, Storm Surge	N/A	Mayor and Council, Borough Administrator, DPW, Borough Engineer	Municipal Bond	\$150,000	N/A	Completed
23-21	Purchase Three New Department of Public Works Trucks	Purchase three new DPW trucks to assist with ongoing maintenance and continuity of operations within the Borough.	Flood, Extreme Wind, Nor'easter, Hurricane and Tropical Storm, Storm Surge	N/A	Mayor and Council, Borough Administrator, DPW, Borough Engineer	Municipal Bond	\$225,000	N/A	Completed
23-22	Update Winter Storm Response Plan	Update Winter Storm Response Plan to incorporate all current aspects of recent changes throughout the Borough. Inclusive of but not limited to the relocation of Police Headquarters, adding new facilities and/or structures erected since the last update,	Winter Storm	N/A	Borough Administrator, DPW	Borough funding		N/A	We are in the process of updating the Borough's EOP. Which is ongoing every 2 Years

New and Ongoing Actions

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
23-23	Install Three Floodproofed Stormwater Pump Stations with Generators	Install three new floodproofed stormwater pump stations in the Borough with a permanent back-up generator at each and to floodproof two existing pump stations and install a back-up	Flood, Extreme Wind, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Borough Administrator	FEMA HMA, Borough funding	TBD	1 year	Ongoing	Continues to seek funding sources possible partnering with FEMA/AOCE

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
		generator at each station.								
23-24	Extend Bulkhead and Dredge Waackaack Creek	Extend bulkhead for the entire length of Waackaack Creek as well as dredge the creek to increase stormwater storage capacity.	Flood, Coastal Erosion, Extreme Wind, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Borough Administrator	Borough Funding for dredging	TBD	1 year	Ongoing	Continues to seek funding sources possible partnering with FEMA/AOCE
23-25	Extend Beach Width, Increase Sand Dune Height, Conduct Dune Maintenance with Dune Grass, and Other Beach Mitigation Projects	Improve 2.6 miles of beach that is 200 feet wide that was substantially damaged due to storm surge. Need to increase the height and width of the dunes to the 100-year storm elevation. Also included in this project is dune maintenance planting dune grass,	Flood, Coastal Erosion, Extreme Wind, Nor'easter, Hurricane and Tropical Storm	High	Borough Administrator	Monmouth County CDBG Program, Post Disaster CDBG Funding Program, Army Corp, FEMA HMA, NOAA, The Nature Conservancy (TNC),	TBD	1 year	Ongoing	Continues to seek funding sources possible partnering with FEMA/AOCE
23-26	Acquire, elevate, or relocate buildings and infrastructure in flood prone areas, with a focus on Repetitive Loss (RL) and Severe Repetitive Loss (SRL) properties	Mitigate approximately 3,843 homes.	Flood, Extreme Wind, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Homeowners and/or Borough Administrator	FEMA HMA	TBD on property value	1 year	Ongoing	Continues to seek FMA funding to elevate eight (8) structures in 2025/2026
23-27	Initiate a Tree Trimming/Pruning Program	Initiate a tree trimming and pruning to prevent downed power lines.	Extreme Wind, Lightning, Nor'easter, Hurricane and Tropical Storm	High	Borough Administrator	Borough funding	\$135,000	1 year	Ongoing	Ongoing program with trees trimmed by DPW on an as needed basis
23-28	Acquire Vacant Properties for Open Space	Purchase vacant homes throughout the Borough for flood mitigation (to improve drainage).	Flood, Extreme Wind, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Homeowners and/or Borough Administrator	FEMA HMA, Borough funding, Blue Acres program	TBD on property value	1 year	Ongoing	Continue to acquire properties as they become available

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
23-29	Develop a Backup Generator Plan	Develop a plan to acquire funding for emergency backup power generators in critical care facilities.	Flood, Extreme Wind, Nor'easter, Hurricane and Tropical Storm, Storm Surge	Medium	Borough Administrator	Borough funding	\$1M	1 year	Ongoing	One (1) generator was acquired for \$500,000 through Municipal Bonds and HMGP funding. Continues to seek funding for a second generator.
23-30	Create Flood Hazard Zoning Ordinances	Develop flood hazard zoning ordinances to better protect the Borough from natural disasters.	Flood, Extreme Wind, Hurricane and Tropical Storm, Storm Surge	High	Borough Administrator	FEMA HMA, Borough funding	\$20,000	1 year	Ongoing	
23-31	Develop Water Use Restriction Ordinances	Develop ordinances to restrict landscaping water usage in times of drought.	Drought	Low	Borough Administrator	Borough funding	\$5,000	1 year	Ongoing	
23-32	Construct a Certified Levee along the Bay	Construct a certified levee to replace the 1968 Army Corp project.	Wave Action, Coastal Erosion, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Mayor and Council, Borough Administrator, DPW, Borough Engineer	FEMA HMA, Army Corp		5 + years	Ongoing	Still seeking funding sources possible partnering with FEMA/AOCE
23-33	Designate More Dredging Dump Sites	Need at least two more dredging dump sites to assist the existing two dump sites.	Flood, Wave Action, Coastal Erosion, Nor'easter, Hurricane and Tropical Storm, Storm Surge	Medium	Mayor and Council, Borough Administrator, DPW, Borough Engineer	Borough funding		2 years	Ongoing	Still seeking funding sources possible partnering with FEMA/AOCE
23-34	Develop a Civil Unrest Response Plan	Develop an action plan to address a coordinated public safety response to civil unrest should it occur within the Borough. The plan will address the appropriate response levels of all public safety entities including Police, Fire, and EMS.	Terrorism	High	Police Chief	Homeland Security grant, Borough funding	\$125,000	1 year	Ongoing	We are in the process of updating the Borough's EOP. Which is ongoing every 2 Years.

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
23-35	Develop a Cyber Attack Response Implementation	Update emergency response plans to address, mitigate, and recover from a potential cyber-attack affecting the operation of Borough activities.	Cyber Attack	Medium	Borough Administrator	Homeland Security Grant, Borough Funding	\$500,000	1 year	Ongoing	This plan is updated as needed. We have IT companies that provide us assistance.
23-36	Develop an Action Plan to Address Economic Collapse	Plan, develop, and maintain a Borough-wide action plan to address the public safety response in the event of an economic collapse. The plan should be all inclusive to safeguard and protect all critical facilities.	All Hazards	Medium	Borough OEM	Borough funding	\$250,000	1 year	Ongoing	We are in the process of updating the Borough's EOP. Which is ongoing every 2 Years.
23-37	Develop an Action Plan to Address a Pandemic Event	Create an emergency response plan to address a pandemic event.	All Hazards	Medium	Fire Chief, County Health Officer, Borough Administrator, OEM	Public health grants, Borough Funding	\$250,000	1 year	Ongoing	We are in the process of updating the Borough's EOP. Which is ongoing every 2 Years.
23-38	Create an Action Plan to Address Power Failure	Create an emergency response plan to address power failure in the Borough.	All Hazards	Medium	Borough Administrator, Police Chief, Fire Chief, DPW Director, OEM	Borough Funding	\$250,000	1 year	Ongoing	We are in the process of updating the Borough's EOP. Which is ongoing every 2 Years.
23-39	Create a Terrorism Response Plan	Create an action plan to address an act of terrorism within the Borough.	Terrorism	Medium	Police Chief, Borough Administrator, OEM	Homeland Security Grant, Borough funding	\$125,000	1 year	Ongoing	We are in the process of updating the Borough's EOP. Which is ongoing every 2 Years.
23-40	Reconstruct Beachway Avenue	Improve road conditions on Beachway Avenue.	All Hazards	Medium	Mayor and Council, Borough Administrator, DPW, Borough Engineer	NJDOT Municipal Aid Funding, Monmouth County CDBG, Borough funding	\$412,000	1 year	Ongoing	Project under construction, to be completed June 2025 – total cost \$360,000

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
23-41	Reconstruct Carr Avenue	Improve road conditions on Beachway Avenue.	All Hazards	Medium	Mayor and Council, Borough Administrator, DPW, Borough Engineer	NJDOT Municipal Aid Funding, Monmouth County CDBG, Borough funding	\$240,000	1 year	Ongoing	To be constructed as part of 5 year redevelopment program. To be funded by developer
23-42	Replace Piping at Beaconlight Avenue	Replace the pipe and repair the pavement and sidewalk on Beaconlight Avenue.	Flood, Coastal Erosion, Extreme Wind, Nor'easter, Hurricane and Tropical Storm, Storm Surge	Medium	Mayor and Council, Borough Administrator, DPW, Borough Engineer	NJDOT Municipal Aid Funding, Monmouth County CDBG, Borough funding	\$300,000	1 year	Ongoing	Received congressional funding for \$1.0M – anticipated construction Sept 2025
23-43	Improve Drainage at Beachway Avenue	Install a new inlet and pipe to improve drainage on Beachway Avenue.	Flood, Extreme Wind, Nor'easter, Hurricane and Tropical Storm, Storm Surge	Medium	Mayor and Council, Borough Administrator, DPW, Borough Engineer	NJDOT Municipal Aid Funding, Monmouth County CDBG, Borough funding	\$180,000	1 year	Ongoing	Project under construction, to be completed June 2025 – total cost \$360,000
23-44	Install New Inlet and Pipes at Laurel Avenue	Install a new inlet and pipe to improve drainage on Laurel Avenue.	Flood, Extreme Wind, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Mayor and Council, Borough Administrator, DPW, Borough Engineer	NJDOT Municipal Aid Funding, Monmouth County CDBG, Borough funding	\$100,000	1 year	Ongoing	Project under construction, to be completed June 2025 – total cost \$360,000
23-45	Replace Aging Water Mains	Improve stormwater and sewer systems and reduce flooding by replacing aging water mains.	Flood, Extreme Wind, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Mayor and Council, Borough Administrator, DPW, Borough Engineer	WIFIA, Monmouth County CDBG, Borough funding	As needed	1 year	Ongoing	Watermain replacement included on ongoing roadway reconstruction projects
23-46	Purchase and Install New Pumps and New Comminutors at Sewer Pump station	Purchase and install three new pumps & two new comminutors for the Sewer Pump Station to help improve stormwater and sewer systems in the Borough.	Flood, Extreme Wind, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Mayor and Council, Borough Administrator, DPW, Borough Engineer	FEMA Hazard Mitigation Grant, WIFIA, Monmouth County CDBG, Borough funding	\$200,000	1 year	Ongoing	Continues to seek funding sources

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
23-47	Purchase a New Jet/Vac Truck	Purchase a new Jet/Vac truck to clean out debris from sewers and stormwater pipes.	Flood, Extreme Wind, Nor'easter, Hurricane and Tropical Storm, Storm Surge	Medium	Mayor and Council, Borough Administrator, DPW, Borough Engineer	Monmouth County CDBG, Borough funding	\$500,000	1 year	Ongoing	Continues to seek funding sources
23-48	Purchase a New Belt Filter Press for Sludge Disposal	Purchase a new belt filter press for sludge disposal to help keep sewer and stormwater systems clear.	Flood, Extreme Wind, Nor'easter, Hurricane and Tropical Storm, Storm Surge	Medium	Mayor and Council, Borough Administrator, DPW, Borough Engineer	WIFIA, Monmouth County CDBG, Borough funding	\$600,000	1 year	Ongoing	Municipal Bonding - Project currently under design – anticipated construction Q3 2025
23-49	Purchase New Membranes for R/O Treatment	Purchase New Membranes for R/O Treatment	Flood, Extreme Wind, Nor'easter, Hurricane and Tropical Storm, Storm Surge	Medium	Mayor and Council, Borough Administrator, DPW, Borough Engineer	WIFIA, Monmouth County CDBG, Borough funding	\$300,000	1 year	Ongoing	Municipal Bond - RO Membrane purchase every 5-8 years. Anticipated purchase Q2 2025.
23-50	Purchase a New Trailer to Haul Equipment	Purchase a new trailer to haul emergency and maintenance equipment, such as a bulldozer used to clear debris and sand.	Coastal Erosion	Medium	Mayor and Council, Borough Administrator, DPW, Borough Engineer	WIFIA, Monmouth County CDBG, Borough funding	\$35,000	1 year	Ongoing	Continues to seek funding sources
23-51	Purchase New Aerial Fire Trucks	Purchase two new aerial fire trucks to better equip the Fire Department with putting out wildfires.	Wildfire	Medium	Mayor and Council, Borough Administrator, DPW, Borough Engineer	Volunteer Fire Assistance Grant, Fire Company and EMS Grant, Borough funding	\$700,000	1 year	Ongoing	Continues to seek funding sources
23-52	Purchase New Basic Life Support Ambulances	Purchase two new Basic Life Support ambulances for the EMS/Rescue squad.	All Hazards	Medium	Mayor and Council, Borough Administrator, DPW, Borough Engineer	Volunteer Fire Assistance Grant, Fire Company and EMS Grant, Borough funding	\$300,000	1 year	Ongoing	Continues to seek funding sources