

19 – HIGHLANDS BOROUGH

PLANNING TEAM AND PARTICIPATION

Name	Title	Participation
Michael Muscillo	Borough Administrator	Point of Contact
Tony Flores	OEM Director (as of 1/1/2025)	Reviewed Municipal Appendix
Steven Winters	CO/CFM Floodplain Administrator	Completed Capability Assessment
Kathaleen Shaw	CRS Coordinator	Completed Capability Assessment
William Kane	OEM Coordinator in 2024	Municipal Workshop #1, Municipal Workshop #2

COMMUNITY PROFILE

Overview

The Borough of Highlands is 1.3 square miles and located just to the south and west of Sandy Hook. It is one of the highest points of land along the Eastern Seaboard. A majority of the Borough's commercial development and marina is in the low-lying lands at the base of the bluff. The Borough has a longstanding fishing, clamping, and boating industry, and breathtaking views of New York City. Highlands has a ferry terminal (currently operated by Seastreak) which passengers can use to commute to New York City.

The Highlands bluff is home to the historic Twin Lights, the first lighthouse to use kerosene, electricity, and the French Fresnel lens, built in 1862. This gave the lighthouse the ability to illuminate 22 miles into the ocean. In 1962, the State of New Jersey acquired the lighthouse, and converted it into a museum facility, which it remains to this day.

Land Use, Development, & Growth

Highlands is a predominantly residential community and most of its land is developed. From 2015 to 2020, the community underwent minimal change in its land use composition, with urban or developed land accounting for nearly 70 percent of its total area, and water and forested land respectively making up 17 percent and 11 percent. Although since 2015, the Borough's barren land declined by 7 acres while its developed land grew by 8.2 acres, its overall land use composition remained largely the same.

Land Use Type	Total Acres (2015)	Total Acres (2020)	Percent Change
Agriculture	-	-	-
Barren Land	12.4	5.5	-56%
Forest	62.0	60.8	-2%
Urban	376.6	384.8	2%
Water	95.4	95.4	>0%
Wetlands	1.4	1.4	>0%

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

Recent Major Development and Infrastructure from 2020 to Present

In 2020, Highlands was awarded a \$179,605 Community Development Block Grant for its Marine Place Walkway project, which involves constructing an elevated pedestrian walkway with amenities at Marine Place West's bulkhead, one of the last unimproved public waterfront locations in the Borough. The surveying and base mapping were completed in May of 2023. The Borough will be receiving another grant to complete the next phase of the project.

The Borough was granted funding from the NJDEP Green Acres program and Monmouth County to improve the skate park adjacent to Snug Harbor Park. Construction began early 2023, and a ribbon cutting ceremony was held in July of 2023 to welcome the community to their new and improved skate park.

The Borough purchased a property on Navesink Avenue from the Our Lady of Perpetual Help parish to serve as the future site of the Highlands Municipal Complex, replacing municipal structures that were damaged or destroyed by Superstorm Sandy. Funding for the construction project was secured through a \$5 million FEMA reimbursement, the sale of bonds, and Borough funds. Construction was completed in July of 2023.

The Borough adopted a Central Business District Redevelopment Plan in May of 2022. The Plan outlines the Borough's ongoing efforts to improve its Bay Avenue corridor and adjacent areas in order to attract additional public and private investment in the redevelopment area. As of 2024, redevelopment is still underway, with Bay Avenue and connecting roads being paved April through August.

Marine Place Walkway, Snug Harbor skate park, and sections of Bay Avenue fall under FEMA's 1% annual chance floodplain (NJFloodMapper). Bay Avenue also has certain parts that are within 0.2% annual chance floodplain, and NJ Inland Design Flood Elevation which is FEMA's 1% annual chance floodplain + 3 feet.

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

Highlands submitted an application to FEMA's BRIC program requesting funding for the Highlands and Monmouth Hills Flood Mitigation Project, which seeks to convert Kavookjian Field into a stormwater retention center and construct a pump station at the corner of Snug Harbor and Bay avenues to the mitigate the high frequency of flooding in the area.

Recently, the U.S. Army Corps of Engineers and state officials put forth a proposal to build a \$148 million floodwall, with an initial cost to Highlands taxpayers of \$13 million to build and an annual cost of \$452,000 to maintain. The reinforced concrete structure would be about 14 feet high and extend over a mile across nearly the entire waterfront. The Borough voted on the proposal during the 2024 election. The ballot measure failed to pass, only garnering 33% support amongst Highlands voters. However, this does not necessarily foreclose on the Borough's ability to pursue the project at a later date.

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).

Highlands Borough has a total population estimated at 4,646, a -4.8% decline since the 2013-2017 ACS survey period. The Borough has a population with an estimated 4.9% of residents under 5 and 21.4% of residents over age 65. With an aging population making up over twenty percent of their total community, Highlands Borough 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 is one block group in Highland's northwest which is identified as potentially overburdened (OBC) due to indicators of Low-Income populations. No parts of the Borough meet criteria for CDRZ or CEJST designations.

Demographics Summary		
Total Population (2018-2022 ACS 5-year Estimates)		4,646
Population Change since 2017		-4.8%
Percent of Population Age < 5		4.9%
Percent of Population > 65		21.4%

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

Note: Dam failure was ranked N/A by the Borough Planning Team

Hazard Ranking Explanation

Wave Action is ranked as medium. The Borough stated that Sandy Hook protects the town from the worst of this hazard. Power Failure was changed from medium in the prior HMP update to high concern for the Borough. Most occurrences of this hazard result from extreme heat or heavy rain. Terrorism is ranked medium, as the town explained that it is always a concern due to the presence of the ferry service. Dam Failure is ranked as not applicable to Highlands as there are no dams located within the municipality or nearby that would threaten the town in case of failure.

Significant Hazard Events Since Last Plan Update

The most significant hazard event since Superstorm Sandy was a coastal storm on December 24, 2022. The tide rose three feet throughout the town, from Gravelly Point Road to Atlantic Street. Although not a hazard event, heavy rainfall in the Monmouth Hills area of Middletown Township causes soil to fill Snug Harbor Creek (see picture below).



Soil in Snug Harbor Creek



Christmas Eve storm in 2022

Climate Change Impacts on Extent and Magnitude of Hazards

Climate change is expected to significantly impact the risks and hazards faced by Highlands Borough. As global temperatures rise, the frequency and intensity of extreme weather events like hurricanes, tropical storms, and coastal flooding are likely to increase. Highlands Borough, with its low-lying areas and proximity to water bodies like the Shrewsbury River and Sandy Hook Bay, is particularly vulnerable. Approximately 50.3 percent of the Borough lies within the 1% annual chance flood zone, and an additional 0.8 percent is in the 0.2% annual chance flood zone. This means a significant portion of the Borough's developed land and critical facilities are at risk of flooding, which could lead to substantial damage to infrastructure, homes, and businesses.

Moreover, climate change is expected to exacerbate coastal erosion and storm surge impacts, further threatening the Borough's coastline and protective features such as bulkheads. The increased frequency of extreme weather events will also strain the Borough's emergency response and recovery capabilities, making it more challenging to protect vulnerable populations, particularly the elderly and those with mobility issues.

RISK ASSESSMENT

National Flood Insurance Program (NFIP) statistics

Highlands Borough	
Initial FIRM	9/3/1971
Effective FIRM	6/15/2022
Number of Policies In-Force:	636
Total Losses:	1739
Total Payments:	\$79,530,975.36
Number of RL Properties:	163

Highlands Borough	
Number of Mitigated RL Properties:	0
RL – Total Losses:	416
RL – Total Paid:	\$16,534,644.90
Number of SRL Properties:	13
Number of Mitigated SRL Properties:	0
SRL – Total Losses:	45
SRL – Total Paid:	\$2,678,059.28

Source: FEMA Policy and Loss Data, August 2024

Vulnerability of the Built Environment

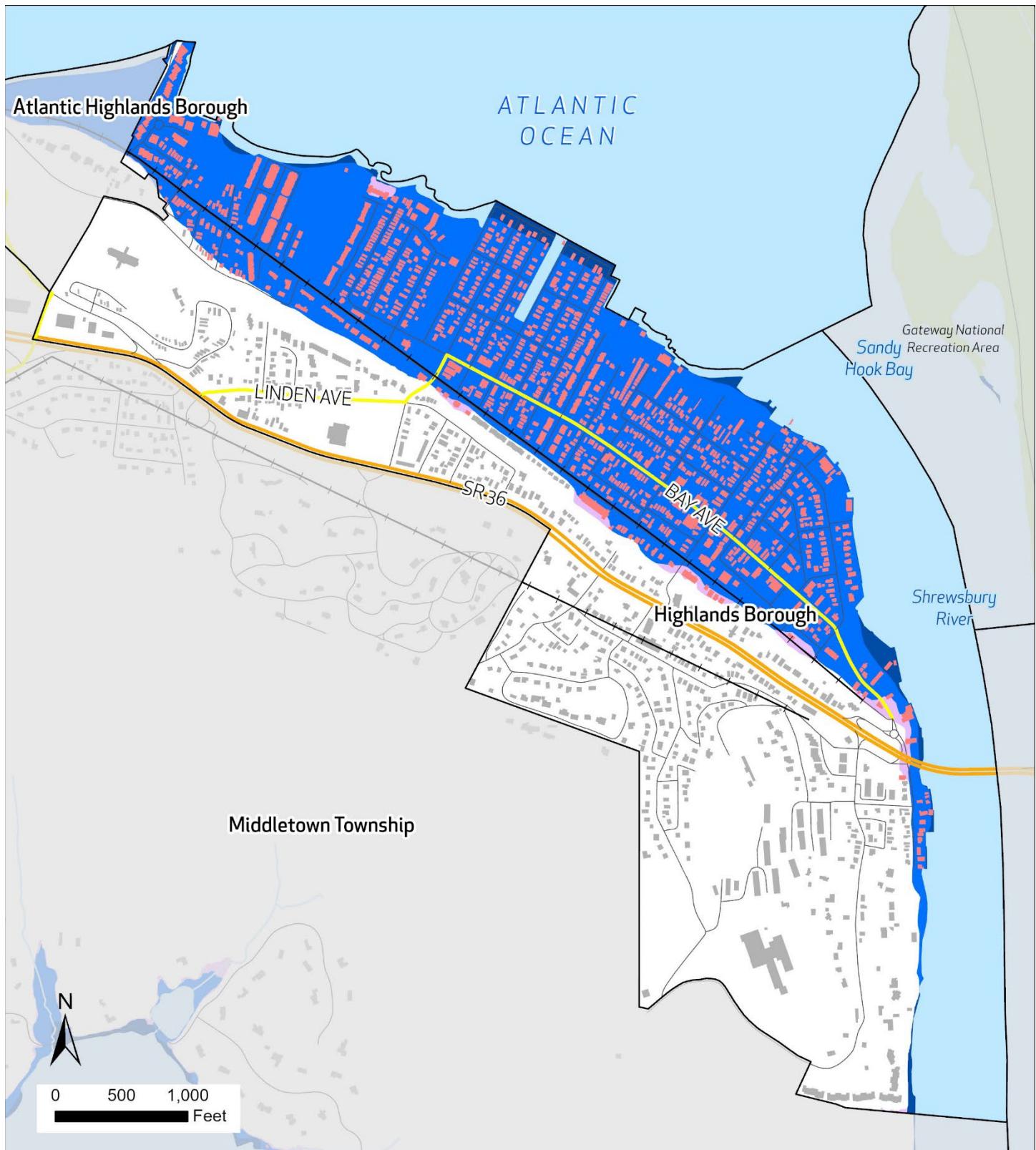
The Special Flood Hazard Area (SFHA) in the Borough of Highlands is primarily centered in the low-lying areas of town adjacent to the waterbodies of the Borough: the Shrewsbury River and Sandy Hook Bay. Approximately 50.3 percent of the total area of Highlands lies within the 1% annual chance flood zone as defined by FEMA. An additional 0.8 percent of the area of the municipality is in the 0.2% annual chance flood zone.

About 84.1 percent of Highlands is considered developed. Of the developed parcels of the town, 52.1 percent fall within the 1% annual chance flood zone and 0.4 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	52.1%	0.4%	45.7%
Exposed Land Area	50.3%	0.8%	42.4%

During the planning process, Highlands 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 8 total facilities. Of these facilities, four are within the floodplain. Of these four, three are also in the area projected to be inundated under sea level rise. These facilities include facilities under the Health and Medical, Safety and Security and Transportation community lifeline categories.

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	2	-	1
Safety and Security	1	-	1
Transportation	1	-	1



Flood Risk

Highlands Borough

FEMA Flood Zone

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

State Routes

County Routes

Local Roads

Rail Lines

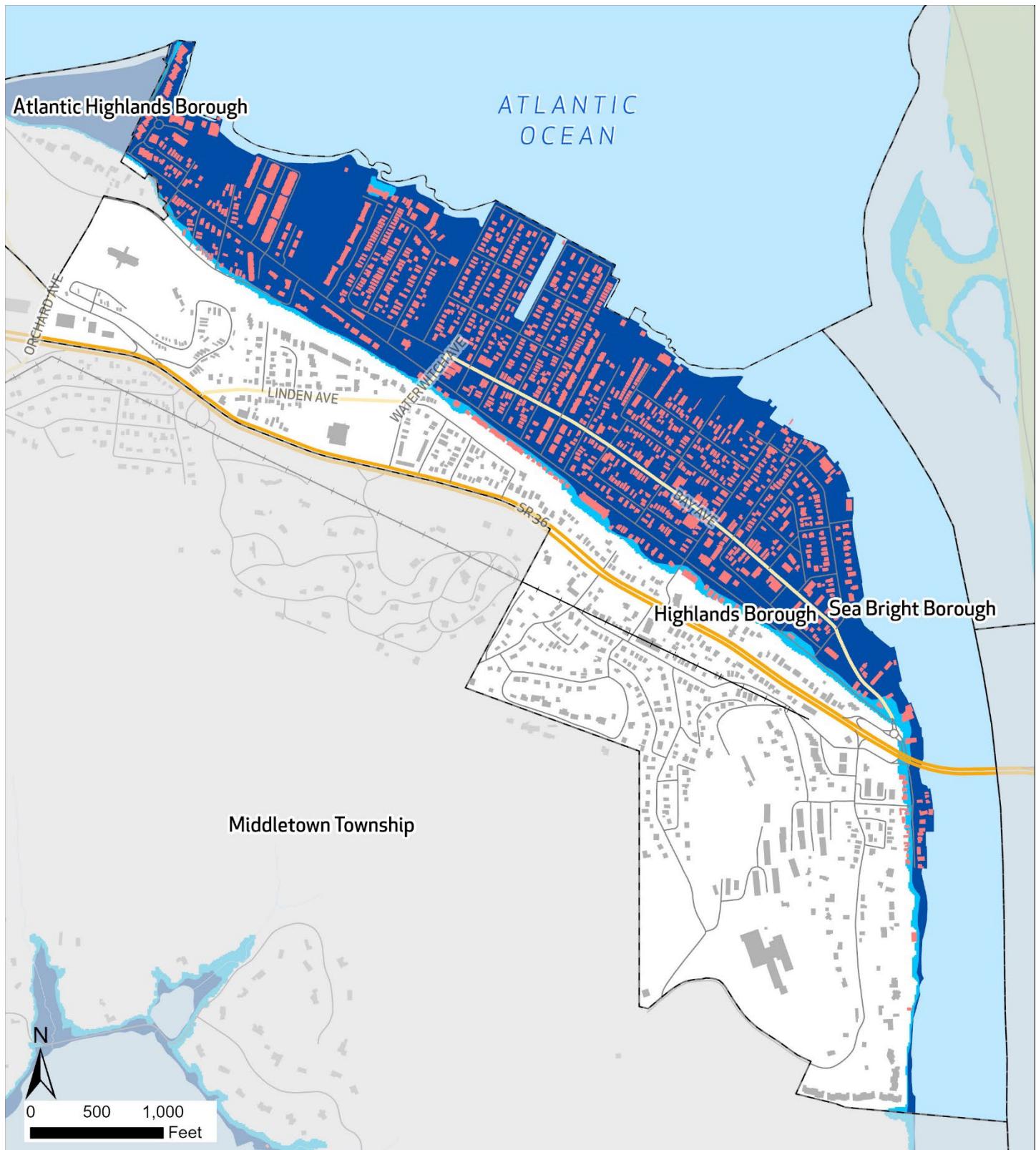
Municipal Boundaries

Building Footprints

Building Footprints within Floodplain

Water

Source: FEMA NJDEP, NJOIT, NJTransit



NJ Inland Design Flood Elevation Highlands Borough

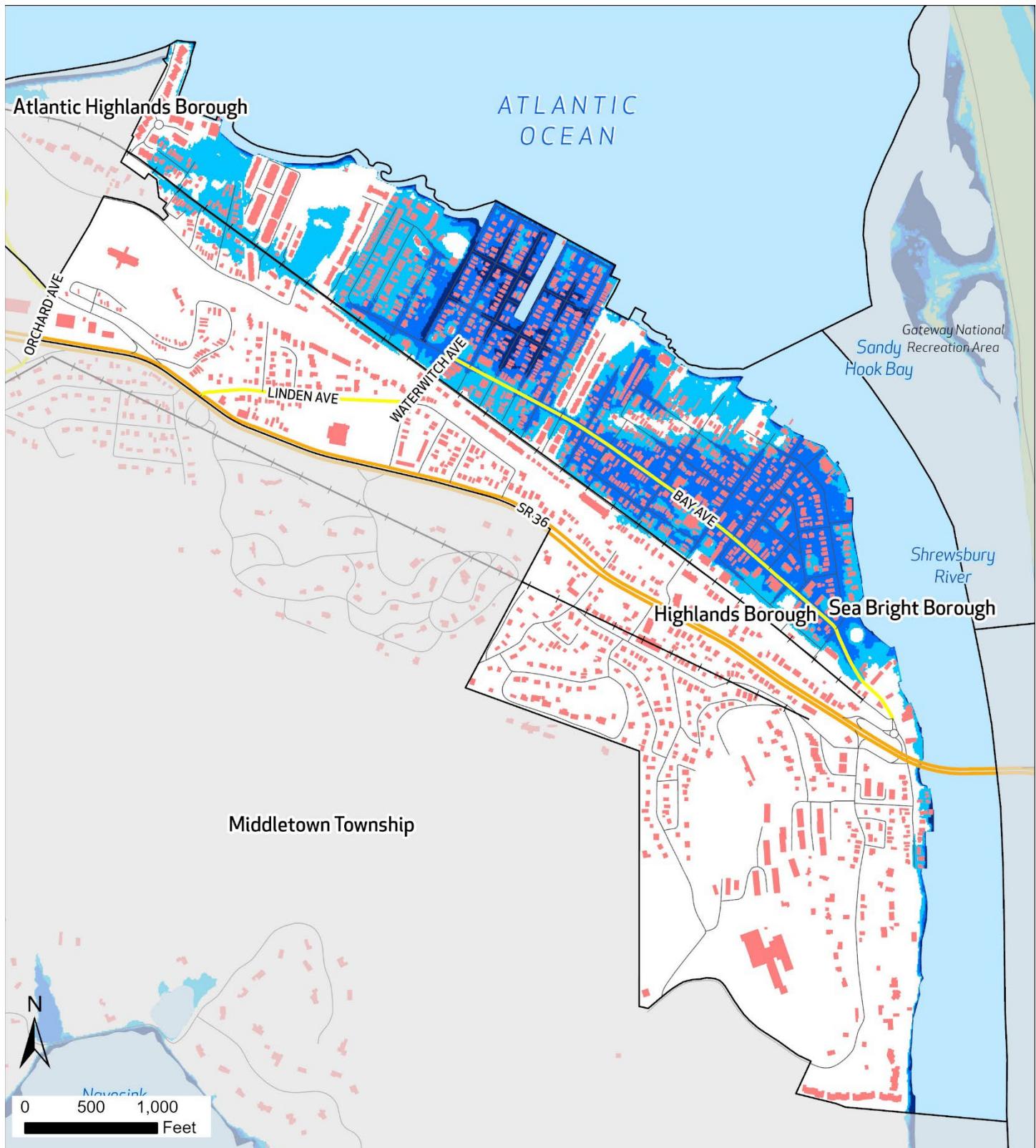
FEMA Flood Zone
 Current Base Flood Elevation (1%)

NJ Inland Design Flood Elevation
 FEMA BFE (1%) plus 3 Feet

State Routes
 County Routes
 Local Roads
 Railroad

Municipal Boundaries
 Water
 National Park Service
 Building Footprints
 Building Footprints within IDFE

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

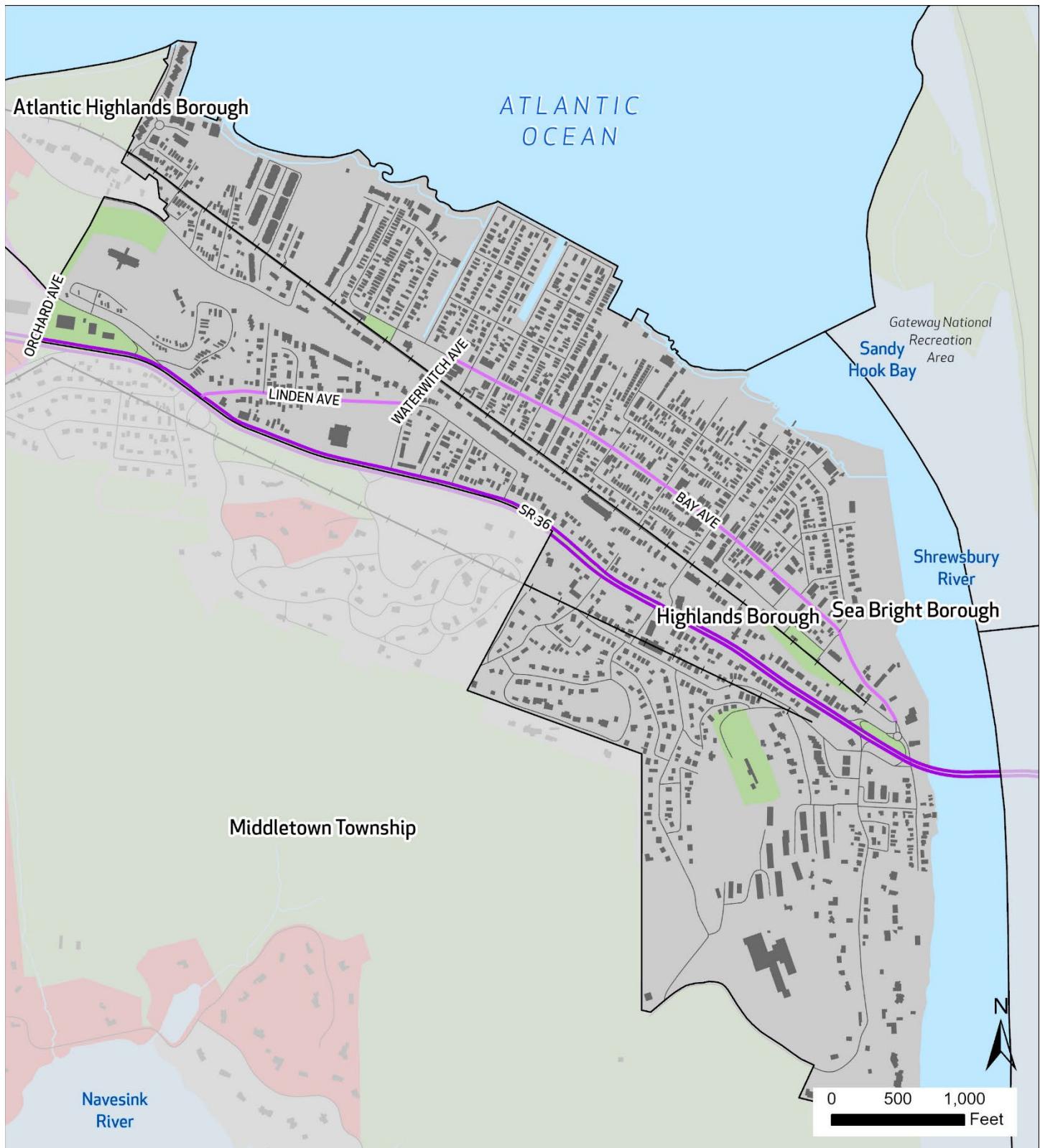


Permanent Inundation Under Sea Level Rise (SLR) Scenarios

Highlands 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
- National Park Service

Source: NOAA, NJDEP, NJOIT, NJTransit



Wildland Urban Interface (WUI) Classification

Highlands Borough

- Intermix
- High or Medium Density Housing
- No Housing

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

- Municipal Boundaries
- Building Footprint
- Water

Source: USFS, NJDEP, NJOIT, NJTransit

CAPABILITY ASSESSMENT

Planning & Regulatory Capabilities

Highlands 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		12/2016	master-plan-re-examination-report-12-27-16.pdf
Capital Improvement Plan	X		2024	
Local Emergency Operations Plan/Continuity of Operations Plan	X		5/17/2023	753071291.pdf
Floodplain Development Ordinance	X		6/15/2022	Borough of Highlands, NJ FLOOD DAMAGE PREVENTION
Floodplain Management Plan	X		6/15/2022	Borough of Highlands, NJ FLOOD DAMAGE PREVENTION
Stormwater Management Ordinance	X		6/5/2024	O-24-09-Stormwater-Management.pdf
Stormwater Management Plan	X		6/5/2024	O-24-09-Stormwater-Management.pdf
Watershed Management Plan		X		
Sheltering Plan		X		
Evacuation Plan		X		
Substantial Damage/Improved Structures Response	X		6/15/2022	O-22-11-Ordinance-Repealing-Flood-Damage-Prevention-and-Replacing-it-with-Floodplain-Management-Regulations.pdf
Repetitive Loss Plan				
Disaster Debris Management Plan		X		
Tracking elevation certificates and/or Letter of Map Change	X		2023	Through Forerunner: Flood Information Highlands Borough, NJ
Post-Disaster Recovery Plan		X		
Current/recent redevelopment plans or studies	X		9/18/2024	O-24-15-Adopting-Amended-CBD-Redevelopment-Plan.pdf
Community Wildfire Protection Plan		X		
Climate Adaptation Plan		X		
Other Plans that discusses hazard mitigation	X			
Other ordinance and regulation that mitigate the impacts of natural hazards		X		

Administrative and Technical Capabilities

Highlands Borough has the following Administrative and Technical capabilities:

Position	Yes	No	Explanation
Floodplain Administrator	X		Created Highlands Borough Department of Buildings & Housing Start-up January 1/ 2024. Fully staffed with CRS Coordinator reporting to this department.
			Prior to Highlands Department of Buildings & Housing Middletown Twp. managed the Construction Office through a shared service agreement 2019-2023. CME Engineering was designated as Floodplain Administrator. Highlands's transition left 4,000 open permits in the SFHA and town wide.
Grant Writer	X		
Staff trained to support mitigation	X		Several municipal staff have attended NFIP review course sponsored by NJDEP or have attended NJAFM Conference floodplain training
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	
Organizations that work with socially vulnerable or underserved populations	X		

Education and Outreach Capabilities

Highlands Borough has the following Education and Outreach capabilities:

Education & Outreach Capability	Yes	No	Explanation
Communicate natural and human-based hazards to the public	X		Meeting, online portal (Forerunner)
StormReady		X	
Firewise USA		X	
Severe Weather Awareness Week		X	
Community Rating System (CRS)	X		Kathy Shaw – CRS Coordinator

Financial Capabilities

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

Financial Capability	Yes	No	Explanation
FEMA BRIC		X	
FEMA FMA		X	
FEMA Public Assistance		X	
FEMA HMGP		X	
Non-FEMA Federal Funding Programs		X	
Other FEMA resources	X		FEMA grant award (Monmouth Hills Flooding \$12 million)
NJ Infrastructure Bank	X		Sewer Rehabilitation program
Other state municipal assistance or grant programs	X		State grants
Evaluation process on the prioritization of risk reduction projects against other local activities		X	
Other ongoing efforts to build additional financial capabilities	X		Capital program

Additional Capability Assessment Information:

- Highlands Borough 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 Borough.
- Sustainable Jersey Participation Status:** Bronze
- The Borough was included in the study areas for two regional flood resilience projects: NJ FRAMES (Fostering Regional Adaptation through Municipal Economic Scenarios) and the NWSE JLUS (Naval Weapons Station Earle Joint Land Use Study).
- The NJ FRAMES study identifies some of the main challenges of Highlands Borough as eroding beaches, constant flooding, unprotected ferry terminals, and vulnerable sewer and sanitary pump stations. The study suggests retrofitting the marinas with hardened infrastructure for storm-surge protection as well as raising vulnerable homes and roads.
- The NWSE JLUS study suggests that Highlands, along with other nearby municipalities, should recognize the 3,000 ft. buffer from NWS Earle boundaries in planning documents and encourage compatible land development within this buffer. Incompatible uses include new medium to high density residential development, which would be inappropriate within the buffer.

MITIGATION STRATEGY

Overview and Progress Since the Last Plan Update

Since 2020 Highlands Borough has adopted August 2022 the NJDEP Model Floodplain Ordinance and invested in a new 2024 Department of Buildings and Housing with technical staff to dovetail the UCC and Floodplain Compliance required to create a comprehensive Floodplain Permitting Process that will facilitate efforts to remove National Violation Tracker NVT properties from FEMA Region 2. Additionally, this investment promotes floodplain compliance through education and compliance action with our residents – creating a resilient place to live, work and invest. Investment in Forerunner Platform August 2023 to manage, track and maintain all Floodplain documentation demonstrates Highlands' commitment to floodplain management. Highlands continues working closely with Monmouth County CRS to attain CRS certification and is awaiting a CAV visit to be scheduled since June 2024.

Completed or Removed Actions

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Time-line	Action Status	Notes
There are no completed or removed actions										

New and Ongoing Actions

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Time-line	Action Status	Notes
Action 19-1	Elevate and Floodproof Downtown District	Thorough plan review and guidance to property owners in the downtown area to elevate residences and floodproofing of multifamily and commercial structures.	Flood, Wave Action, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Borough of Highlands	FEMA HMA	\$100,000	1 year	Ongoing	No progress has been made since last update. Bay Avenue CBD Redevelopment Plan ensures that New projects and substantial improvements comply with Floodplain Management Regulations Chapter 21.
Action 19-2	Build More Stormwater Pump Stations and Provide Stormwater Infrastructure Improvements along Route 36	This project proposes additional stormwater pump stations to help direct excess water into Sandy Hook Bay. Stormwater infrastructure improvements are proposed along the Route 36 Roadway and in Veterans Memorial Park to capture runoff from higher elevations to the south. The proposed concept further suggests clearing sediment from the Jones Creek channel to help accommodate the increased water volume from Route 36. These stormwater improvements will help reduce flooding in	Flood, Wave Action, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Borough of Highlands	FEMA Hazard Mitigation Assistance (HMA), NJDEP Blue Acres, Environmental Protection Agency	\$1.3 million	1 year	Ongoing	North Street storm sewer and pump redid electric and elevated. Valley Street is complete (13-20 years ago). Veterans Park and Jones Creek/Huddy Park still need to be addressed.

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Time-line	Action Status	Notes
		downtown Highlands and on Route 36, which provides access to the NWS Earle Pier Complex.								
Action 19-3	Protect and Restore Existing Natural Protective Features (the coastline) and Flood Control Infrastructure (i.e. bulkheads)	Routine visual inspection of coastlines and bulkheads, identification of areas of concern, and upgrade/improve troubled areas, with mitigation as needed, to ensure levels of protection afforded by the Borough's beach and bulkhead system.	Wave Action, Coastal Erosion, Nor'easter Hurricane and Tropical Storm	High	Borough of Highlands	FEMA HMA	\$3 million	1 year	Ongoing	No progress has been made since last update.
Action 19-4	Implement No-Build Ordinances along Landslide-prone Areas and Implement Soil Stabilization Measures	Borough Ordinances have been revised over recent years to make disturbance on or near a steep slope prohibited without seeking variance relief. Implement monitoring mechanisms for areas of concern and apply soil stabilization measures, as needed to prevent impacts to improved property and infrastructure. Revise Ordinances as necessary. Prohibit slope disturbances within specific areas.	Landslide	High	Borough of Highlands	FEMA HMA	\$2 million	1 year	Ongoing	No progress has been made since last update.
Action 19-5	Improve Electrical and Telecommunication Systems at Critical Facilities	Improvements to electrical and telecommunication systems at critical facilities including EOC and local shelters to minimize future damage and system failures, and maximize the Borough's ability to perform and maintain critical functions during emergencies. These improvements will include generators and mitigation measures of various features.	All Hazards	Medium	Borough of Highlands	FEMA HMA	\$250,000	1 year	Ongoing	New buildings include Police Department, Borough Hall, and OEM.
Action 19-6	Implement Wind Resistant	Installation of hurricane clips and wind shutters on existing Borough facilities including emergency facilities	Extreme Wind, Nor'easter, Hurricane and Tropical	Medium	Borough of Highlands	FEMA HMA	\$2 million	1 year	Ongoing	Town officials in charge now

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Time-line	Action Status	Notes
	Building Techniques		Storm, Winter Storm, Tornado							
Action 19-7	Conduct a Study on Borough Facilities and Seek Funding for Mitigation Projects	Conduct a study to determine the year built and level of protection for each Borough facility for various hazards (foremost: flooding). Then, seek funding for mitigation projects for those facilities that are not currently designed for an appropriate level of protection. This includes but is not limited to increasing interior drainage and adding an additional stormwater pump station at Jones Creek, rebuilding the North Street Stormwater Pump station to current codes and standards, constructing new Borough facilities to replace the storm damaged, flood prone facilities and/or flood proof existing facilities that can feasibly be repaired and mitigated.	Flood	Medium	Borough of Highlands	Municipal budget	\$12 million	1 year	Ongoing	Highlands Fire Department Shore Drive Block 53 Lot 1 substantial improvement 0% NVT List Low Floor. Need plan how to bring into compliance. Report submitted by CRS Coordinator March-April 2024.
Action 19-8	Install Movable Flood Gates along the Raritan Bay	Install movable flood gates to protect residential property and infrastructure.	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Borough of Highlands, Army Corps of Engineers	FEMA HMA, Army Corp of Engineers	\$500 million	5+ years	Ongoing	Recently, the U.S. Army Corps of Engineers and state officials put forth a proposal to build the floodwall. The Borough voted on the proposal during the 2024 election. The ballot measure failed to pass; however, this does not necessarily foreclose on the Borough's ability to pursue the project at a later date.
Action 19-9	Reduce the Amount of Stormwater Flowing from Middletown, which Floods Route 36 and the Borough	Coordinate with NJDEP, DOT, Middletown Township, and the Monmouth Hills Association to mitigate the flooding caused by stormwater runoff.	Flood, Nor'easter, Hurricane and Tropical Storm	High	Middletown, Highlands, DEP, DOT	FEMA HMA, DOT, County Funds	\$12.19 million	2 years	Ongoing	The Borough received \$12.19M in FEMA funding in 2023 for the Highlands and Monmouth Hills Flood Mitigation and Green Infrastructure Project. The project includes the installation of Monmouth Hills Headwalls, bioswales and check dams to redirect stormwater and improve

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Time-line	Action Status	Notes
										water quality. Additionally, underground stormwater storage systems and pump stations will be constructed at key locations. These structures will alleviate flooding and discharge excess water. Other elements of the project include new generators and bulkheads to increase resilience.
Action 19-10	Acquire, elevate, or relocate buildings and infrastructure in flood prone areas, with a focus on Repetitive Loss (RL) and Severe Repetitive Loss (SRL) properties	Work with residents to build to higher standards and elevation that will mitigate impact of flood related hazards while maintaining residents in community.	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Borough of Highlands, residents	FEMA HMA	TBD	5+ years	Ongoing	The Borough website has a section titled "flood protection information" which includes information on regulations in the Borough and resources to aid in floodproofing building responsibly in the floodplain.
Action 19-11	Elevate First Aid Building and Fire House	Elevate first aid building and Fire house including 10.5" flood vents, and elevated generator.	Flood, Nor'easter, Hurricane, Storm Surge	Low	Borough of Highlands	FEMA HMA, Borough Funds	TBD	5 years	New	First Aid building needs major repairs and an elevation. Fire House experienced minor flooding during Hurricane Sandy and would benefit from elevations if funding is available.