

## 5 – ATLANTIC HIGHLANDS BOROUGH

### PLANNING TEAM AND PARTICIPATION

Name	Title	Participation
Sara Weimer	OEM Director	Primary Point of Contact, Municipal Workshop #1, Municipal Workshop #2
Robert Ferragina	Atlantic Highlands Borough Administrator	Reviewed document
Lori Hohenleitner	Atlantic Highlands Mayor	Reviewed document
James Philips	Atlantic Highlands Department of Public Works	Reviewed document
Doug Rohmeyer	Atlantic Highlands Borough Engineer	Reviewed document
Francis Reiner	Atlantic Highlands Borough Planner	Reviewed document

### COMMUNITY PROFILE

#### Overview

The Borough of Atlantic Highlands shares the distinction of being named by the New Jersey chapter of the American Planning Association as a “Great Place in New Jersey.” The borough is in the northeast section of Monmouth County and is part of the county’s Bayshore Region, which includes the nine municipalities that border Raritan Bay. The 1.2-square mile borough set on Raritan Bay offers astonishing views of the New York City skyline, especially from the Mount Mitchell Scenic Overlook, the highest point on the county’s eastern seaboard.

A long waterfront, active harbor, and vibrant downtown with local businesses are just a few of the features that continue to attract people to Atlantic Highlands. The borough is home to the Seastreak Ferry service, which passengers can take to New York City on their daily commute, or to other places such as Martha’s Vineyard and Sandy Hook Beach. The Bayshore Trail, a popular waterfront section of the Henry Hudson Trail that connects Atlantic Highlands and Highlands, was re-opened after being repaired and upgraded with a new drainage system, making it more resilient to damage from future storms.

The Coastal Waterfront Design Element included in the borough’s Master Plan provides guidance for resilient development and redevelopment along the waterfront. It calls for the coordination of the borough’s plans and ordinances with County and State plans. This element is based in part on recommendations from the Jacques Cousteau National Estuarine Research Reserve, as noted in its “Getting to Resilience” report, which evaluated the borough’s potential risks from natural disasters.

After receiving substantial property damage from Superstorm Sandy, Atlantic Highlands continues to rebuild and promote resiliency. The Atlantic Highlands Municipal Marina, which was restored after Superstorm Sandy to accommodate 600 boats, was among the largest projects to receive federal disaster funding in New Jersey.

#### Land Use, Development, & Growth

Atlantic Highlands is a predominantly residential community and home to substantial publicly owned land. From 2015 to 2020, the community underwent minimal change in its land use composition; throughout this period, urban or developed land accounted for nearly 84 percent of its total area, while forested land made up nearly 12 percent.

Land Use Type	Total Acres (2015)	Total Acres (2020)	Percent Change
Agriculture	-	-	-
Barren Land	6.1	5.9	-3%
Forest	95.3	95.6	>0%
Urban	663.5	664.4	>0%
Water	7.9	6.9	-13%

Wetlands	18.6	18.6	>0%
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Source: NJDEP Land Use/Land Cover data, 2015-2020

### Recent Major Development and Infrastructure from 2020 to Present

Recent major development includes two apartment complexes that have been completed during this period. 15 West at 15 Lincoln Ave includes 10 units and was completed in 2021. Saltaire, a development located at 158 1<sup>st</sup> Ave, includes 18 units, and was completed in 2022. These properties are near the 0.2% annual chance floodplain, but are not located within it.

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

Following the completion of the Borough Housing Element and Fair Share Plan in 2019, Atlantic Highlands anticipates future housing developments. One such development is Brant Point, which broke ground in April 2024, and will include 16 single-family homes located on Harbor View Drive. Brant Point is not located within the floodplain.

### 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).

Atlantic Highlands Borough has a total estimated population of 4,409. Of these residents, an estimated 3.5% are under age 5, and 19.6% are estimated to be over age 65. With nearly one-fifth of the population over age 65, the borough may consider targeted pre-disaster communication toward older communities. The borough saw a modest growth between ACS periods, with an estimated population gain of 2.0%.

No parts of Atlantic Highlands meet designation criteria for CDRZ, CEJST, or OBC identification.

Demographics Summary	
<b>Total Population (2018-2022 ACS 5-year Estimates)</b>	4,409
<b>Population Change since 2017</b>	2.0%
<b>Percent of Population Age &lt; 5</b>	3.5%
<b>Percent of Population &gt; 65</b>	19.6%

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
<b>Natural Hazards</b>		
Flood	Coastal Erosion	Wildfire
Hurricane/Tropical Storm	Extreme Wind	Drought
Landslide	Extreme Temperature	Earthquake
Storm Surge	Tornado	Lightening
	Wave Action	
	Winter Storm	
<b>Human-made Hazards</b>		
	Cyber Attack	Civil Unrest
	Economic Disruption	
	Power Failure	
	Pandemic	
	Terrorism	

Note: Dam Failure was ranked N/A by the Borough.

## Hazard Ranking Explanation

Atlantic Highlands is one of the few areas within the Monmouth County that has landslide risk. Extreme wind was changed from medium in the prior HMP update to high concern. This is due to several wind events impacting the Borough recently. The Borough ranks extreme temperatures as medium. The main concern from this hazard is the potential for power outages impacting cooling/cooling centers. Wave Action is ranked as medium. The Borough stated that Sandy Hook protects the town from the worst of this hazard. Earthquake is low concern however there were minor cracks in the Borough from the 2024 earthquake centered in New Jersey. Terrorism is ranked medium. The town explained that it is always a concern due to the presence of the ferry service. Dam Failure is not applicable as there are no dams located within the municipality or nearby which would threaten the town in the case of failure.

## Significant Hazard Events Since Last Plan Update

Significant hazard events reported in Atlantic Highlands since the last plan update consist largely of Extreme Wind events. Most recently a “Microburst” wind event which occurred on June 22, 2024. As a result of this event, trees were downed all throughout town. This caused a power outage in the Borough for about 8 hours. A similar microburst occurred in 2021 which was similar to the June 2024 microburst. In Summer 2022, the Borough experienced straight line winds.

The Borough has also experienced erosion in recent years caused by landslide experienced on Bayside drive. The borough reports that frequent downed trees and erosion often makes road near Henry Hudson’s Springs impassable.

## Climate Change Impacts on Extent and Magnitude of Hazards

Climate change is expected to significantly impact the extent and magnitude of risks and hazards in Atlantic Highlands Borough. Rising sea levels and increased frequency of extreme weather events such as hurricanes, tropical storms, and heavy rainfall will exacerbate flooding and coastal erosion, posing greater threats to the borough's infrastructure and residential areas. The borough's vulnerability to landslides and extreme wind events is also likely to increase, as changing weather patterns lead to more intense and frequent storms. Additionally, higher temperatures and prolonged heatwaves could strain the power grid, leading to more frequent power outages and impacting cooling centers. These changes necessitate proactive measures to enhance resilience and mitigate the adverse effects of climate change on the community.

## RISK ASSESSMENT

### National Flood Insurance Program (NFIP) statistics

Atlantic Highlands Borough	
Initial FIRM	8/03/1981

Atlantic Highlands Borough	
Effective FIRM	6/15/2022
Number of Policies In-Force:	105
Total Losses:	86
Total Payments:	\$3,656,275.67
Number of RL Properties:	5
Number of Mitigated RL Properties:	0
RL – Total Losses:	15
RL – Total Paid:	\$1,198,789.78
Number of SRL Properties:	1
Number of Mitigated SRL Properties:	0
SRL – Total Losses:	4
SRL – Total Paid:	\$115,043.55

Source: FEMA Policy and Loss Data, August 2024

## Vulnerability of the Built Environment

The Special Flood Hazard Area (SFHA) in the Borough of Atlantic Highlands is primarily located adjacent to the waterbodies of the borough: Many Mind and Wagner Creeks and the areas adjacent to the Raritan Bayshore. Approximately 16.1 percent of the total area of Atlantic Highlands lies within the 1% annual chance flood zone as defined by FEMA. An additional 3.7 percent of the area of the municipality is in the 0.2% annual chance flood zone.

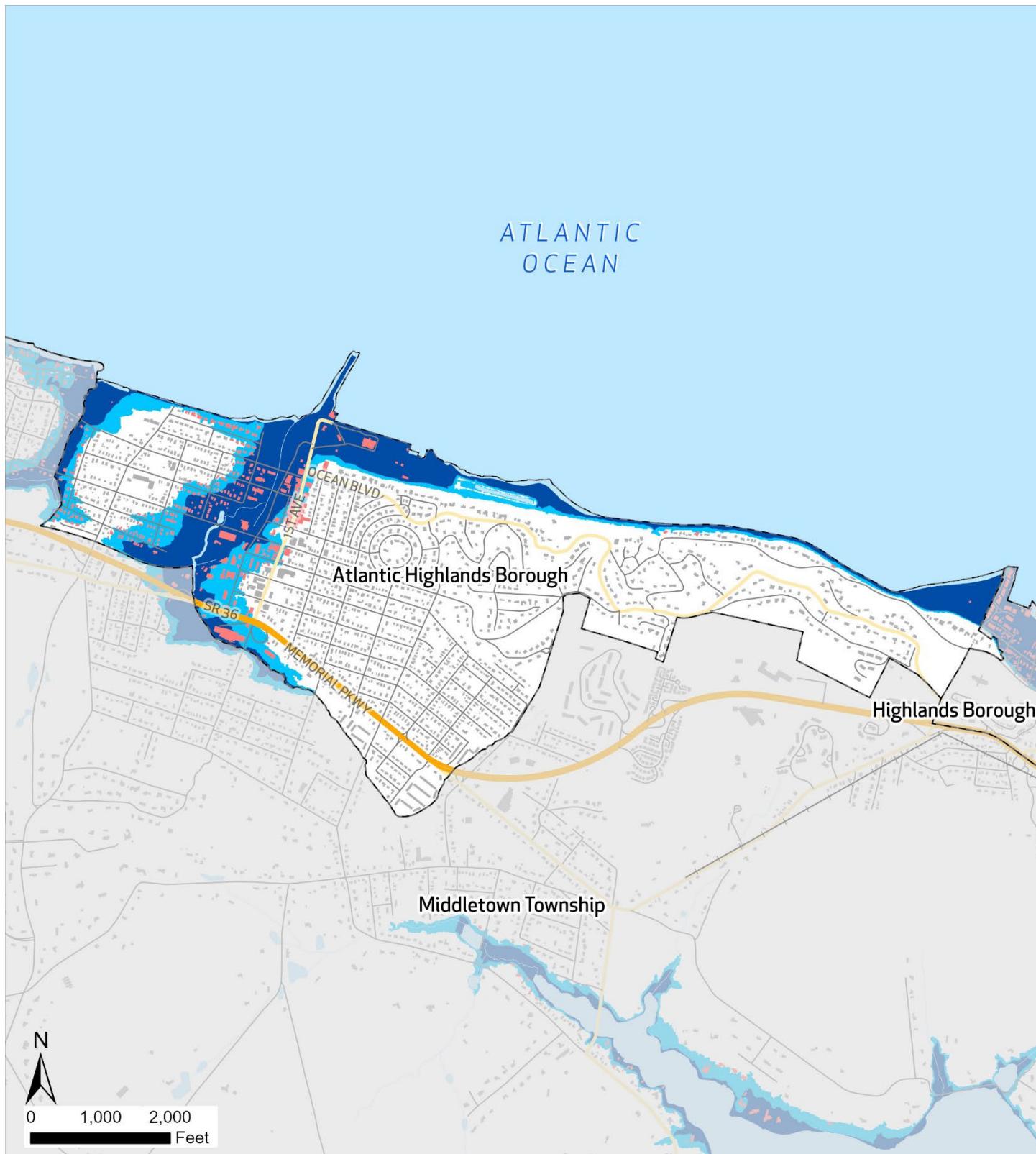
About 83.0 percent of Atlantic Highlands is considered developed. Of the developed parcels of the town, 9.4 percent fall within the 1% annual chance flood zone and 1.0 percent are within the 0.2% annual chance flood zone. This illustrates that development in the municipality has generally occurred in areas that are less prone to flooding.

	Percentage in the 1% Floodplain	Percentage in the 0.2% Floodplain	5 feet of Sea Level Rise
Developed Parcels	9.4%	1.0%	5.6%
Exposed Land Area	16.1%	3.7%	7.2%

During the planning process, Atlantic Highlands Borough 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 nine total facilities. Of these facilities, none are within the floodplain or areas projected to be at risk from sea level rise.

	Number in the 1% Floodplain	Number in the 0.2% Floodplain	Number Within 5 feet of Sea Level Rise
Community Lifelines and Critical Facilities	-	-	-





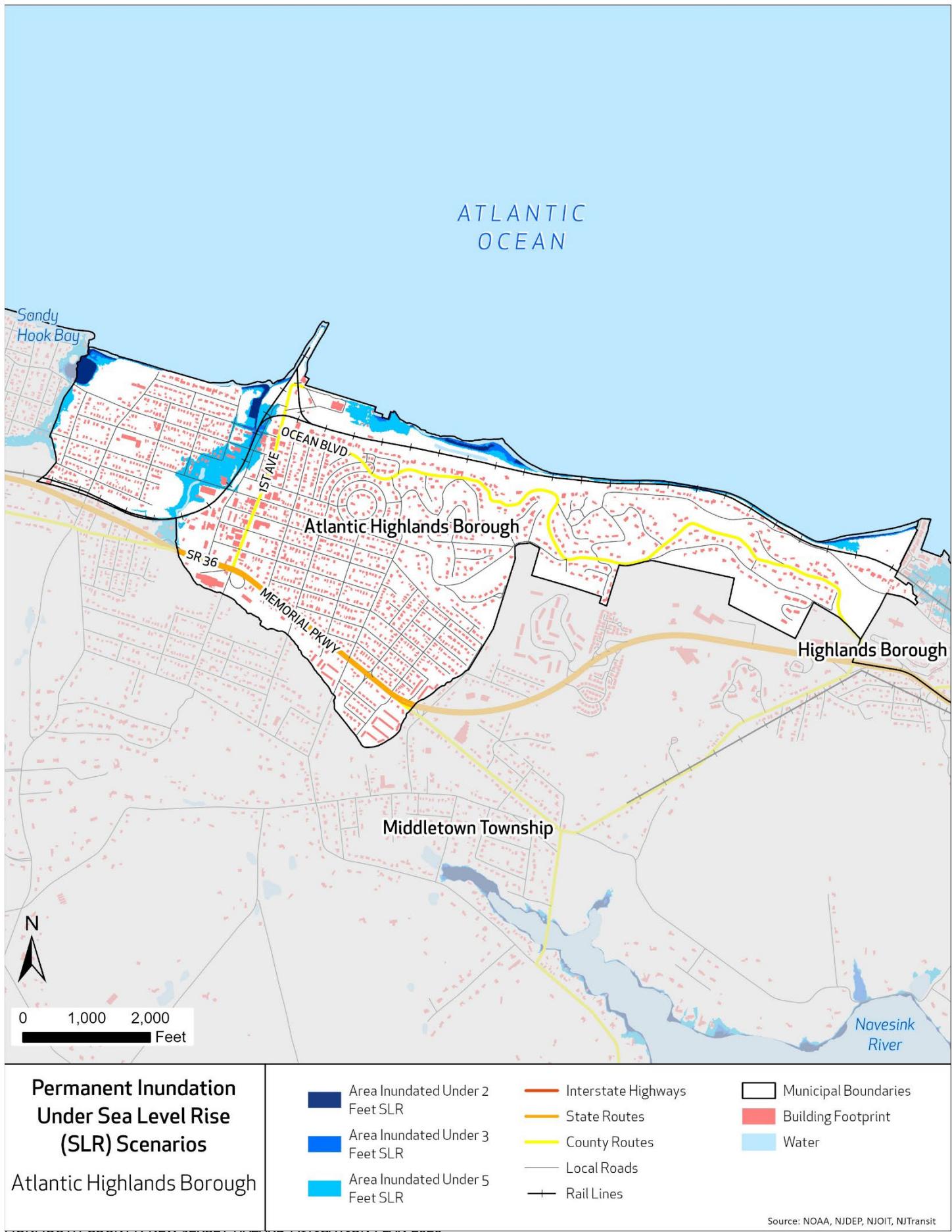
**NJ Inland Design Flood Elevation**  
**Atlantic Highlands Borough**

**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  
 Building Footprints  
 Building Footprints within IDFE

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





### Wildland Urban Interface (WUI) Classification

Atlantic Highlands Borough

- Intermix
- High or Medium Density Housing
- Low or Very Low 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

Atlantic 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		2019	The 2019 Master Plan contains a Coastal Waterfront Design Element intended to guide development and redevelopment along the waterfront and to coordinate local plans and ordinances as well as County and State Plans. The Plan also contains a Conservation Element which establishes the framework for the borough to conserve, restore or enhance water resources, wetlands, floodplains, and other natural resources. This section includes recommendations from the January 2015 Getting to Resilience Report as well as discussion of sea level rise and floodplain management objectives.
Capital Improvement Plan		X		
Local Emergency Operations Plan/Continuity of Operations Plan	X		2024	
Floodplain Development Ordinance	X		2022	The Borough adopted a new Flood Damage Prevention Ordinance using the Model Code Coordinated Ordinance created by FEMA and NJDEP to maintain NFIP eligibility. The ordinance did not incorporate optional higher standards.
Floodplain Management Plan		X		
Stormwater Management Ordinance		X		
Stormwater Management Plan		X		
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 discuss hazard mitigation		X		
Other ordinance and regulation that mitigate the impacts of natural hazards	X			The General Zoning Provisions of the borough contains a Steep Slope Ordinance. This ordinance requires a permit for most work or disturbance, including tree trimming, in the designated Slope Area. The goal of such an ordinance is to reduce the hazards of steep slopes, such as erosion, flooding, and soil slippage.

### Administrative and Technical Capabilities

Atlantic Highlands Borough has the following Administrative and Technical capabilities:

Position	Yes	No	Explanation
Floodplain Administrator	X		The Floodplain Administrator is the Borough Administrator and is a full-time municipal employee. They Borough Administrator is also responsible for implementing hazard mitigation actions.
Grant Writer	X		The Borough employs a contractor as a grant writer.
Staff trained to support mitigation		X	
Existing mutual aid or technical assistance agreements to		X	

Position	Yes	No	Explanation
support hazard mitigation projects			
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

Atlantic 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		The Borough website has some information on hazards available to the public. The borough also uses phone notifications and social media to communicate hazard information as necessary and in the case of an emergency.
StormReady		X	
Firewise USA		X	
Severe Weather Awareness Week		X	
Community Rating System (CRS)		X	

## Financial Capabilities

Within the last five years, Atlantic 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	
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		The borough prioritizes risk reduction projects based on impacts to human life and safety.
Other ongoing efforts to build additional financial capabilities		X	

## Additional Capability Assessment Information:

- **Safe Routes to School Rating:** Silver
- **Sustainable Jersey Participation Status:** Silver

## MITIGATION STRATEGY

### Overview and Progress Since Last Plan Update

The Borough of Atlantic Highlands is a sustainable community that actively works to integrate environmental planning with proactive policy and aims to improve resilience to damage from natural disaster. Since 2020, the Borough has completed the standby generator project and continues to work on completion of additional projects to enhance the municipality's resiliency goals. Moving forward, Atlantic Highlands Borough will remain forward thinking and prioritize roadway, steep slope, and critical infrastructure improvements, coordinating with local, county, and state agencies on the best ways to achieve resiliency within this community.

### 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 withdrawn actions.

### New and Ongoing Actions

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Time-line	Action Status	Notes
Action 5-1	Construct Proper Drainage Infrastructure to Eliminate High Velocity Overland Flows that Cause Slope Failure	Design and construct proper drainage to eliminate the high velocity overland flows that cause slope failure and loading along Hillside Rd & Paper St. There are three options to stabilize the slope: to carry the stormwater from the end of Hillside Rd and pipe it to the Bay, a detention basin, or stop the velocity of the stormwater.	Landslide	High	Borough of Atlantic Highlands	Local budget, grants, open space, HMA	\$2 million	1 year	Ongoing	By providing proper drainage, the velocity of water running off the hill will be slowed down resulting in a lower risk of erosion and landslide. No progress has been made on this action since last plan update.
Action 5-2	Provide Slope Stabilization along Bayside Dr. and Shoreline Protection along the Henry Hudson Trail	Provide hillside stabilization along 400+ feet of Bayside Drive, reduce erosive wave action, stabilize the Henry Hudson shoreline and coastal bluffs, protect the Regional trail access, and stabilize and protect the	All Hazards, Landslide	High	Borough of Atlantic Highlands or Monmouth County	FEMA HMA, The Nature Conservancy (TNC), NOAA National Fish and Wildlife Foundation (NFWF)	\$20,100,000.00	3 years	Ongoing	This action should reduce the risk of landslide.

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Time-line	Action Status	Notes
		function of the Bayshore Regional Sewer								
Action 5-3	Acquire, elevate, or relocate buildings and infrastructure in flood prone areas, with a focus on Repetitive Loss (RL) and Severe Repetitive Loss (SRL) properties	Most of the homes that were flooded by Superstorm Sandy are now elevated. The Borough will work with the outstanding RL properties on mitigation options and any new RL/SRL properties that are added to the list.	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Homeowner	FEMA HMA	\$407,750	3 years	Ongoing	No progress has been made on this action.
Action 5-4	Purchase and Install Portable 100 KW Diesel Generator at Atlantic Highlands Harbor Utility	A new portable 100 KW diesel generator with transfer switch will be on a trailer and transfer switch will be installed at the Harbor Office. This will allow continued power to the harbor office which will allow refueling for all emergency service vehicles and vessels.	All Hazards, Power Failure	Low	Borough of Atlantic Highlands	Local budget, FEMA HMA	\$62,000	1 year	Ongoing	Project completed: The 110kW Standby Generator has been delivered and installed by contractor. The cost for the Generator was \$117,263.00 U.S. Dollars. The full maximum amount was taken from the borough budget in 2023.
Action 5-5	Floodproof First Avenue Sewer Pump Station	The pump station needs to be floodproofed with bulkheading at both the entrance door and garage door and install a bulkhead in front of the generator that keeps the plant up and running during power outages.	Flood, Nor'easter, Hurricane and Tropical Storm	High	Borough of Atlantic Highlands	FEMA HMA	\$40,000	1 year	Ongoing	No progress has been made on this action since last plan update.
Action 5-6	Restore the Many Mind Creek Stream Corridor	Implement the mitigation actions from the Army Corp of Engineers Report and the Monmouth County Raritan/Sandy Hook Bay	Flood, Wave Action,	Low	Borough of Atlantic Highlands	FEMA HMA, NJ Corporate Wetlands Restoration Partnership		2 years	Ongoing	Remediation of Many Mind Creek has been completed by the NJ Natural Gas Company for contamination related to its historical use as a dumping ground

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Time-line	Action Status	Notes
		Coastal Resilience Planning Study, including but not limited to clearing the existing outlet to allow the creek to properly discharge into the Bay provide habitat for local fauna.	Nor'easter, Hurricane and Tropical Storm, Storm Surge			(NJCWRP), National Oceanic and Atmospheric Administration				for coal tar waste and other pollutants. Any mitigation actions were dependent on that being completed. The Creek has been dredged but flooding has not improved. Additional drainage at the confluence of the creek with the bay, should result in proper drainage of the creek during tidal changes.
Action 5-7	Extend the Existing Breakwall in the Raritan Bay to Protect the Marina	Extend the existing breakwall 150 LF to the east into the Raritan Bay, enclosing and protecting the marina.	Flood, Wave Action, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Borough of Atlantic Highlands	FEMA HMA	\$8 million	2 years	Ongoing	No progress has been made on this action since last plan update.
Action 5-8	Work with the County to install a new breakwall to protect the Bayshore Waterfront Trail	Work with the County to install a new breakwall to protect the Bayshore Waterfront Trail	Flood, Wave Action, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Monmouth County	County	TBD	5 years	New	This action was initiated by Monmouth County to protect the Bayshore Waterfront Trail. Atlantic Highlands Borough doesn't own the trail but will work with the County within the scope of responsibility to assist.