7 – BELMAR BOROUGH

PLANNING TEAM AND PARTICIPATION

Name	Title	Participation
Robert DeMartin	**OEM Coordinator**	**Point of Contact, Municipal Workshops #1 and #2**
Brian Poppert	**Deputy OEM Coordinator**	**Point of Contact, Municipal Workshops #1 and #2**
Kevin Kane	Business Administrator	HMP Review
Billy Musto	DPW Supervisor	HMP Review
April Claudio	Borough Clerk	HMP Review
James Oris	Borough Engineer	HMP Review
Gerald Buccafusco	Mayor	HMP Review

COMMUNITY PROFILE

Overview

The Township of Belmar is a one-square mile community with a small-town charm that was founded in 1872. Belmar is one of the most active seaside communities on the Jersey Shore, with year-round attractions including restaurants and shops along Main Street, recreational activities, an active marina with restaurants overlooking the Shark River, a boardwalk with eateries, a first aid station with restrooms, a vibrant art scene, and annual festivals including the very popular New Jersey Seafood Festival. Belmar is a beautiful community with beaches and a 1.3-mile boardwalk that is open year-round with panoramic views of the Atlantic Ocean.

Belmar adopted a beach management plan in 2019 that addresses long-term protection and recovery of threatened and endangered species populations, while recognizing the need for storm protection and recreation. As part of this effort, the Borough planted dune gardens at the 4th and 12th Avenue beaches featuring pollinator-friendly plants in addition to traditional dune grasses. In 2022, Belmar was awarded a Certificate of Recognition from the NJ Transit Village Initiative for being a Designated Transit Village for 20 years.

Land Use, Development, & Growth

Belmar 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 65 percent of its total area. The area covered by water did diminish marginally or by 2 percent, but it still accounted for nearly 30 percent of the Borough's area in this period.

Land Use Type	Total Acres (2015)	Total Acres (2020)	Percent Change
Agriculture	-	-	-
Barren Land	43.5	48.0	10%
Forest	0.7	0.7	>0%
Urban	614.5	615.0	>0%
Water	287.6	281.5	-2%
Wetlands	5.0	6.1	22%

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

Recent Major Development and Infrastructure from 2020 to Present

48 units are being constructed at 5th Avenue and Main Street, 72 at 9th Avenue and Main Street, and 10th Avenue and Railroad Avenue. Parts of these streets fall under FEMA's 1% and 0.2% annual chance floodplain, and NJ Inland Design Flood Elevation which is FEMA's 1% annual chance floodplain + 3 feet (NJFloodMapper). Belmar Inn is also due to be

demolished and converted into condominiums and may be within the New Jersey State Flood Hazard Area, as estimated by FEMA BFE +3.

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

On 12th Ave, the Belmar Inn is due to be demolished and converted into condominiums, two residential structures will be demolished to make way for a modern condominium complex. The new complex will include new stormwater management facilities, underground utilities, solar panels, and electric vehicle charging stations. All improvements are intended to be ADA-compliant.

198 units are to be constructed on Marina Avenue between 8th and 10th Avenue at the prior Motel Lodge by the railroad. 139 units are to be constructed at 6th Avenue and Main Street, 56 units by 8th Avenue and Main Street, and additional units at 10th Avenue near Main Street. Parts of these streets fall under FEMA's 1% and 0.2% annual chance flood hazard, and NJ Inland Design Flood Elevation (NJFloodMapper).

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).

Belmar Borough has a total estimated population of 5,877. This population is estimated to be 3.5% under 5 years old, and 17.5% over age 65. With nearly one-fifth of the borough population over age 65, Belmar may consider targeted engagement strategy and evacuation plans with an aging population in mind. The borough experienced population growth between 2013-2017 and 2018-2022 survey periods, gaining an estimated 2.8% in population during this time.

The borough has one block group on its far west side identified as potentially vulnerable due to overburden (OBC) based on Low Income population criteria. No areas of Belmar Borough meet designation criteria for CDRZ or CEJST identification.

Demographics Summary	
Total Population *(2018-2022 ACS 5-year Estimates)*	5,877
Population Change since 2017	2.8%
Percent of Population Age < 5	3.5%
Percent of Population > 65	17.5%

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 Temperatures	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

Nor'easters remain a significant concern. In January 2022, a storm caused oceanic flooding on Ocean Avenue at the southern end of Belmar. Coastal erosion is a moderate concern due to the erosion on the beachfront and marina.

Significant Hazard Events Since Last Plan Update

Flooding occurred at Silver Lake during the 2024 storm, which brought eight inches of precipitation and caused the lake to overflow at street level. However, improvements at Silver Lake and Lake Como help keep the flooding at street level, preventing it from affecting homes. Route 35 experienced coastal flooding, with the worst occurring at Route 35 and K Street by the L Street beach. The flooding backs up onto K Street towards 13th Avenue. Route 35 is shut down about ten to fifteen times per year. Additionally, Route 35 and Maplewood Road flood from runoff.

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 Belmar. As global temperatures rise, the frequency and intensity of extreme weather events such as hurricanes, nor'easters, and heavy precipitation are likely to increase. This will exacerbate coastal flooding, storm surges, and erosion, posing greater threats to Belmar's infrastructure and residential areas. The increased precipitation will also lead to more frequent and severe inland flooding, particularly in low-lying areas near Silver Lake and Lake Como, which are already prone to overflow during storms.

Moreover, sea level rise will further elevate the risk of coastal flooding and erosion. This will not only affect the beachfront and marina but also critical infrastructure such as Route 35, which already experiences frequent flooding.

RISK ASSESSMENT

National Flood Insurance Program (NFIP) statistics

Belmar Borough	
Initial FIRM	5/13/1972
Effective FIRM	6/15/2022
Number of Policies In-Force:	740
Total Losses:	485
Total Payments:	$19,379,207.82
Number of RL Properties:	33
Number of Mitigated RL Properties:	0
RL – Total Losses:	85
RL – Total Paid:	$3,449,480.56
Number of SRL Properties:	1
Number of Mitigated SRL Properties:	0
SRL – Total Losses:	6
SRL – Total Paid:	$188,405.49

Source: FEMA Policy and Loss Data, August 2024

Vulnerability of the Built Environment

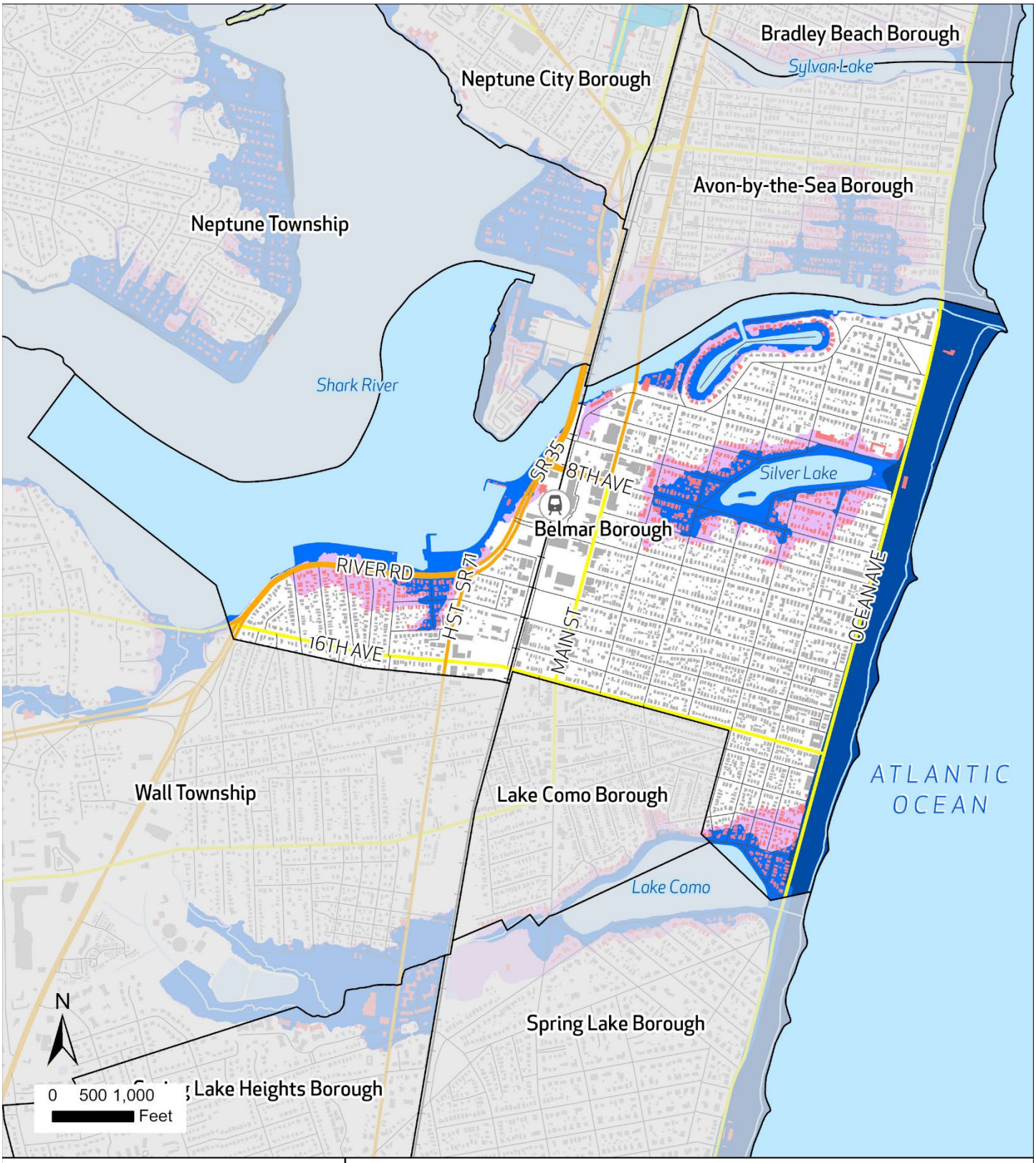
The Special Flood Hazard Area (SFHA) in the Borough of Belmar is primarily located adjacent to the waterbodies of the borough: Silver Lake and Lake Como, the Shark River and the Atlantic Ocean. The low-lying areas near these Lakes are especially flood prone. Approximately 25.1 percent of the total land area of Belmar lies within the 1% annual chance flood zone as defined by FEMA. An additional 7.2 percent of the area of the municipality is in the 0.2% annual chance flood zone.

About 82.6 percent of Belmar is considered developed. Of the developed parcels of the town, 25 percent fall within the 1% annual chance flood zone and 10.2 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	12.5%	13.8%	5.6%
Exposed Land Area	25.1%	7.2%	7.5%

During the planning process, Belmar 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 14 total facilities. Of these facilities, three are located within the floodplain and one is within the area projected to be at risk from sea level rise. These facilities include facilities within the energy, safety and security, and water systems community lifeline types.

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



Flood Risk

Belmar Borough

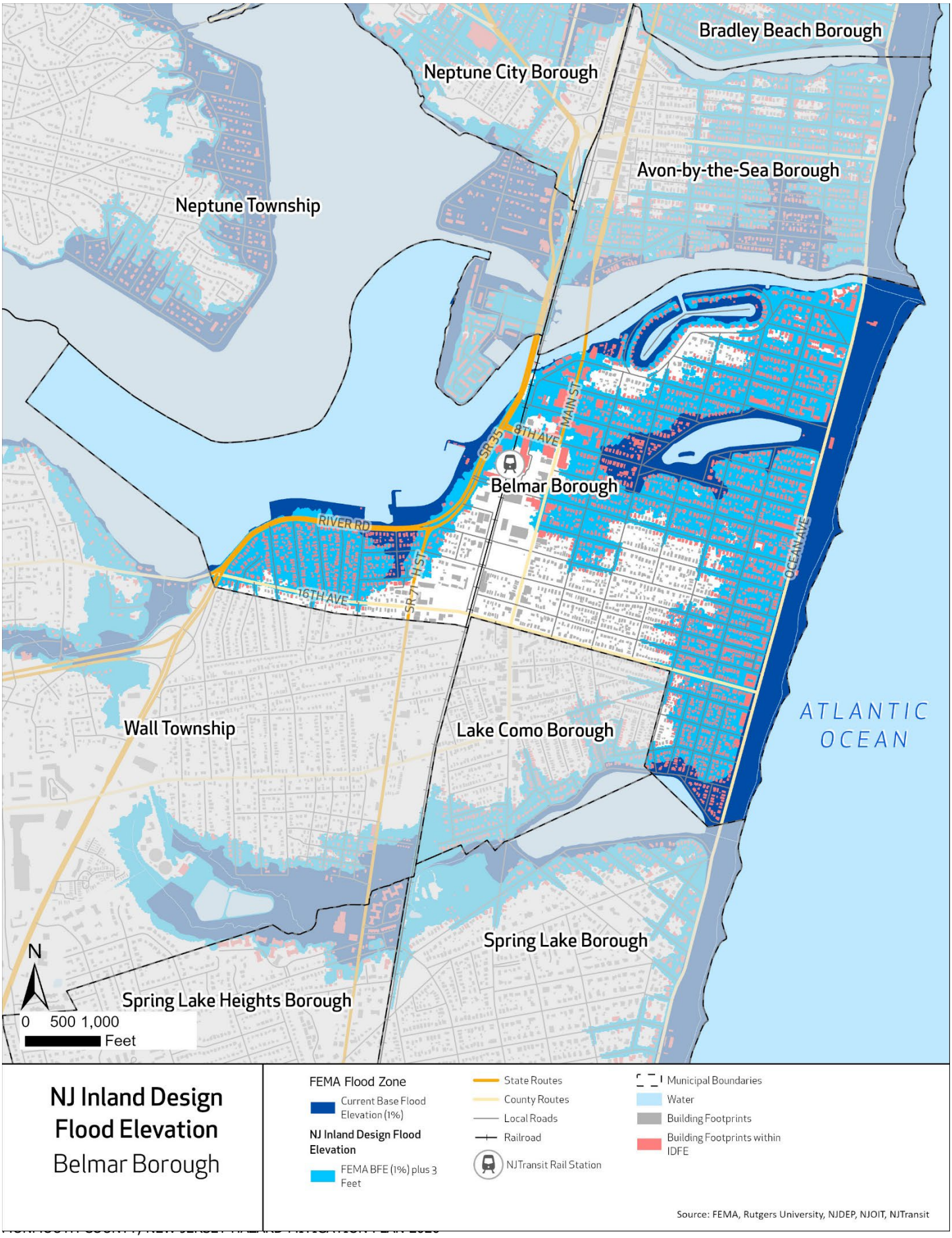
FEMA Flood Zone

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

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

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

Source: FEMA NJDEP, NJOIT, NJTransit


Bradley Beach Borough
Neptune City Borough
Avon-by-the-Sea Borough
Neptune Township
MAIN ST
SR35
8TH AVE
Belmar Borough
RIVER RD
16TH AVE
SR71
HST
OCEAN AVE
ATLANTIC OCEAN
Wall Township
Lake Como Borough
Spring Lake Borough
Spring Lake Heights Borough
N
0 500 1,000
Feet
NJ Inland Design Flood Elevation
Belmar 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
NJTransit Rail Station
Municipal Boundaries
Water
Building Footprints
Building Footprints within IDFE
Source: FEMA, Rutgers University, NJDEP, NJOIT, NJTransit

Permanent Inundation Under Sea Level Rise (SLR) Scenarios

Belmar 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
- NJTransit Rail Station
- Municipal Boundaries
- Building Footprint
- Water

Source: NOAA, NJDEP, NJOIT, NJTransit


Bradley Beach Borough
Sylvan Lake
Neptune City Borough
Avon-by-the-Sea Borough
Neptune Township
Shark River
Silver Lake
MAIN ST
8TH AVE
SR 35
Belmar Borough
RIVER RD
16TH AVE
SR 71
H ST
OCEAN AVE
Wall Township
Lake Como Borough
ATLANTIC OCEAN
Lake Como
Spring Lake Borough
Spring Lake Heights Borough
N
0 500 1,000
Feet
Wildland Urban Interface (WUI) Classification
Belmar Borough
High or Medium Density Housing
Low or Very Low Density Housing
No Housing
State Routes
County Routes
Local Roads
Rail Lines
NJTransit Rail Station
Municipal Boundaries
Building Footprint
Water
Source: USFS, NJDEP, NJOIT, NJTransit

CAPABILITY ASSESSMENT

Planning & Regulatory Capabilities

Belmar 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		2016	Has supporting recommendations for hazard mitigation and resilience
Capital Improvement Plan	x			
Local Emergency Operations Plan/Continuity of Operations Plan	x			
Floodplain Development Ordinance	x			
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			Letters sent to residents in flood zones yearly
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		

Administrative and Technical Capabilities

Belmar 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		
Organizations that work with socially vulnerable or underserved populations		x	

Education and Outreach Capabilities

Belmar Borough has the following Education and Outreach capabilities:

Education & Outreach Capability	Yes	No	Explanation
Communicate natural and human-based hazards to the public	x		Nixle, social media
StormReady	x		
Firewise USA		x	
Severe Weather Awareness Week		x	
Community Rating System (CRS)	x		

Financial Capabilities

Within the last five years, Belmar 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		Jakes Law – Inclusive Park Monmouth County Park Agreement, lights for Dempsey Park
Other ongoing efforts to build additional financial capabilities	X		NJDOT Road grants, Transit village grant

Additional Capability Assessment Information:

- Belmar 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.

- **Community Rating System:** Class 5

MITIGATION STRATEGY

Overview and Progress Since Last Plan Update

The mission of the Borough of Belmar Hazard Mitigation Plan is to enhance the resilience and safety of our community by proactively identifying, assessing, and reducing the risks posed by natural and human-made hazards. Through collaborative efforts, strategic planning, and the implementation of practical solutions, we aim to protect lives, property, and the environment while ensuring the continued vitality of Belmar. We are committed to fostering a culture of preparedness, promoting sustainable development, and prioritizing the well-being of our residents and visitors in the face of current and future challenges.

Completed or Removed Actions

Action	Name	Description	Hazards Addressed	Pri-ority	Responsible Party	Potential Funding	Cost Estimate	Time-line	Action Status	Notes
Action 7-1	Purchase and Install Transfer Switches for Generators	Transfer switches for generators at the fire station/first aid building, municipal complex.	All Hazards	Low	Borough	FEMA HMA	$100,000	1 year	Completed	Self-funded by Borough. $100K.
Action 7-2	Mitigate Silver Lake Flooding	The Silver Lake Flooding mitigation project is constructed. A 48" gravity fed and forced main running from Silver Lake to the Shark River Inlet under A Street.	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge	N/A	N/A	N/A	$1,300,000	N/A	Completed	Self-funded through Bond Ordinance
Action 7-3	Consolidate and Relocate Emergency Services Outside of SFHA	Consolidate the three fire stations and first aid squad to a building outside the SFHA.	All Hazards	N/A	N/A	N/A	N/A	N/A	Withdrawn	*Not in the current plan.*

New and Ongoing Actions

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
Action 7-4	Lake Como Flooding Mitigation	The Lake Como Flood Mitigation Project is to increase the amount of stormwater which can be removed from the lake before and during a storm event, by replacing the current outlet pipe and providing for a permanent forced main to pump out storm water.	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge	N/A	N/A	N/A	$25,000	N/A	Ongoing	*Self funded by bond. $165K*

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
Action 7-5	Replace and Elevate Bulkhead at L Street Beach and Maclearie Park	Replace existing timber bulkhead with a new steel bulkhead along Route 35 at L Street Beach and Maclearie Park. The existing timer and concrete are deteriorated and too low to offer significant protection to the properties behind it.	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge	N/A	N/A	N/A	$2,700,000	N/A	Ongoing	*Landings replaced by FEMA BRIC. Remaining sections still need to be completed.*
Action 7-6	Purchase and Install a Generator for Police Station to Provide Continuity of Operations During a Storm	The Belmar Police Station needs a new generator to provide for continuity of operations during a storm event.	All Hazards	N/A	N/A	N/A	$200k	N/A	Ongoing	*Waiting on funding.*
Action 7-7	Acquire, elevate, or relocate buildings and infrastructure in flood prone areas, with a focus on Repetitive Loss (RL) and Severe Repetitive Loss (SRL) properties	Of the approximately 210 houses located in the SFHA of VE and A, 114 are primary residences that are eligible for federal funding to cover the Increased Cost of Compliance to elevate the structures. These primary residences range from Elevation 6 - 11.	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Affected homeowners	FEMA HMA		2 years	Ongoing	Still waiting for funding. With the Borough having control of high-risk areas and properties, it will allow for full control over the projects that can be done on site. This will allow that no new major construction be proposed.
Action 7-8	Install a Steel Sheet Pile along the Beach	The installation of a steel sheet pile, 30-feet long driven into the beach on the east side of the boardwalk (on the east side of Ocean Avenue) will establish surge protection at elevation 13 feet.	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Borough of Belmar	FEMA HMA	$5,000,000	2 years	Ongoing	No funding.

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
Action 7-9	Improve Beachfront Surveillance Capabilities with fixed cameras	The Borough identifies a need for increased surveillance on the beachfront. There are currently 3 functional cameras, but more are needed.	Terrorism	Low	Borough	FEMA DHS	$20,000	3 years	New	Borough looking to add 3 more surveillance cameras on the beachfront which is one of the biggest summer tourism beaches in the state. These cameras would assist in surveillance along with assisting with missing persons on the beach or in water. These cameras would also assist in monitoring coastal storms and flooding from the OEM EOC.
7-10	Pump station on State Hwy 35	The Borough identifies a need for a new pump station for a wet well. During coastal storms and power outages, the pump station does not work and causes backup.	All Hazards	High	Borough	FEMA HMA	$250,000	3 years	New	During storms and tidal flooding, the pump station does not work efficiently, leading to sewage backup. The pumps are outdated and need to be replaced. Continued coastal flooding and storms make this a more common occurrence.
7-11	Tide Check Valves on State Hwy 35 and K St.	During coastal storms and high tides, flooding occurs on State Hwy 35 in the area of K St. Water from the Shark River Inlet will come up through the catch basins leading to coastal flooding and road closures to State Hwy 35 and neighboring streets.	All Hazards	High	Borough	FEMA HMA	$500,000	3 years	New	This is a high priority as the roadway floods approximately 13 times a year. This flooding leads to road closures of a state highway which is a main thoroughfare through town. This roadway is an access route to the local hospital for surrounding towns. By addressing this issue will help reduce road closures and water backing up into residents' property nearby.

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
7-12	Relocate borough fuel pump from a flood zone or elevate.	The Borough currently has its fuel pumps located in the marina. This area is in a flood zone and at risk of being inaccessible and/or damaged during a coastal flooding event. Borough would like to relocate fuel pump to another location in town.	All Hazards	High	Borough	FEMA HMA	$250,000	5 years	New	The Borough's fuel pump which is utilized by emergency vehicles and town vehicles which service Belmar and Lake Como. This fuel pump is located in the Belmar Marina in a flood zone and has flooded in the past. When flooded, vehicles do not have access to fuel. By moving the fuel pumps to a non-flood zone will help ensure proper response during an emergency or storm from.