

47 – SPRING LAKE BOROUGH

PLANNING TEAM AND PARTICIPATION

Name	Title	Participation
Edwin J. Hale	Deputy Coordinator, Spring Lake OEM	Attended Municipal Meeting
Bryan Dempsey	Municipal Business Administrator	Reviewed municipal appendix
Robbin Kirk	Municipal CFO	Reviewed municipal appendix

COMMUNITY PROFILE

Overview

Spring Lake Borough is a coastal community along the Jersey Shore in Monmouth County. The community was formed from portions of Wall Township in 1892 and named for a spring-fed lake in the center of town. The Borough is a desirable residential community, consistently named as a “Best Place to Live,” and shares its eastern border with the Atlantic Coast. It is bordered to the south by Wreck Pond and the Wreck Pond Brook, to the north by Lake Como, and to the west by the Borough of Spring Lake Heights.

With a land area of 1.30 square miles and two miles of beachfront, the Borough of Spring Lake serves as a popular summer tourist destination in addition to year-round residential community. The central lake, also named Spring Lake, is a popular spot for leisure and recreation. The Spring Lake boardwalk has been recognized as the longest, uninterrupted, non-commercial boardwalk in the State of New Jersey.

Spring Lake is primarily a coastal community, with beachfront and dunes making up the eastern border of the Borough. Spring Lake is a central attraction and green space for the community, surrounded by Divine Park and bordering nearby Potter Park. To the south, the North Branch of the Wreck Pond Brook and Wreck Pond provide some green space and water flow ultimately reaching the Wreck Pond Inlet at Pier Beach. The community has green space and parks access at Marucci Memorial Park along Polypod Brook to the north of the Borough.

Land Use, Development, & Growth

Spring Lake 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; urban or developed land accounted for nearly 80 percent of its total area during this period. The area covered by water did decline marginally by 7 percent or 7.3 acres, while its barren land gained 12 percent more land or 6.3 acres, but the town’s overall land use composition remained largely the same.

Land Use Type	Total Acres (2015)	Total Acres (2020)	Percent Change
Agriculture	-	-	-
Barren Land	53.7	60.0	12%
Forest	3.8	3.8	0%
Urban	756.2	757.2	0%
Water	102.7	95.4	-7%
Wetlands	29.6	29.6	0%

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

Recent Major Development and Infrastructure from 2020 to Present

Spring Lake Borough is largely built out and has experienced no major development in recent years since 2020.

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

In 2023, Spring Lake purchased a vacant property along Third Avenue, for \$3.3 million, with the goal of turning the building into a mixed-use development. The Borough currently plans to find a restaurant tenant for the first floor with three upper-story affordable apartments.

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).

Spring Lake Borough has a total estimated population of 2,788. Of these residents, nearly 2.0% are estimated to be under age 5, and 37.8% are over age 65. The Borough experienced an estimated -6.4% population decline over the ACS survey periods between 2013-2017 and 2018-2022. With an aging population making up nearly thirty eight percent of their total community, Spring Lake 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. Additionally, a population loss of over six percent over two five-year survey periods illustrates that changes to the built and social environment may be present locally which impact pre-hazard communication and post-disaster response.

There are no areas of Spring Lake which have been identified by CDRZ, CEJST, or OBC designation criteria.

Demographics Summary	
Total Population (2018-2022 ACS 5-year Estimates)	2,788
Population Change since 2017	-6.4%
Percent of Population Age < 5	2.0%
Percent of Population > 65	37.8%

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/Nor'easter	Extreme Temperatures	Lightning
Flood	Extreme Wind	Drought
Storm Surge	Tornado	Earthquake
	Winter Storm	Wildfire

High	Medium	Low
Natural Hazards		
	Coastal Erosion	
Human-made Hazards		
	Cyber Attack	Civil Unrest
	Economic Disruption	Power Failure
	Terrorism	
	Pandemic	

The Borough ranked Dam Failure and Landslide as N/A.

Hazard Ranking Explanation

Flooding in Spring Lake is the hazard of primary concern due to the community's proximity to the coast, its location between coastal lakes, and the presence of waterways that flow to the Atlantic. The Borough experiences regular flooding, with high water tables causing minor flooding in basements and yards. Coastal erosion is also a significant concern, which has been mitigated to date by beach replenishment projects. These projects are particularly impactful following storm events such as hurricanes, tropical storms, and Nor'easters. The ongoing efforts to replenish the beaches help to protect the shoreline and reduce the impact of coastal erosion on the community.

The Wreck Pond Inlet and Dunes Restoration Project, completed in 2016, included dredging and berm construction to address water quality issues and provide flood mitigation. This project has been instrumental in improving the resilience of the area to flooding and enhancing the overall environmental quality of the region.

Significant Hazard Events Since Last Plan Update

Since the last plan update, there have been no major flood events in Spring Lake. However, the Borough continues to experience regular flooding, particularly during high water and post-storm events with heavy rainfall. These recurring flooding incidents highlight the ongoing need for effective flood management and mitigation strategies to protect the community and its infrastructure from the adverse effects of flooding.

Climate Change Impacts on Extent and Magnitude of Hazards

Climate change is expected to significantly impact the risks and hazards faced by the Borough of Spring Lake, NJ. Rising sea levels and increased storm intensity will exacerbate coastal erosion and increase the frequency and severity of coastal flooding. This will likely result in greater property damage, more frequent disruptions to community life, and increased costs for mitigation and recovery efforts. The Borough's location between Wreck Pond and Lake Como heightens its vulnerability to flooding, necessitating more robust flood management and mitigation strategies.

Additionally, climate change is expected to bring more intense and frequent extreme weather events, such as Nor'easters and hurricanes. These high wind hazard events have already caused significant property damage in Spring Lake, and their increased frequency and intensity will likely lead to even greater impacts in the future. The Borough will need to invest in more resilient infrastructure and emergency preparedness measures to mitigate the effects of these storms. By proactively addressing these challenges, Spring Lake can better protect its residents and infrastructure from the growing risks posed by climate change.

RISK ASSESSMENT

National Flood Insurance Program (NFIP) statistics

Spring Lake Borough	
Initial FIRM Date	2/17/82
Effective FIRM Date	6/15/2022
Number of Policies In-Force:	550
Total Losses:	506

Spring Lake Borough	
Total Payments:	\$15,881,860.67
Number of RL Properties:	79
Number of Mitigated RL Properties:	2
RL – Total Losses:	200
RL – Total Paid:	\$6,205,142.30
Number of SRL Properties:	12
Number of Mitigated SRL Properties:	0
SRL – Total Losses:	48
SRL – Total Paid:	\$1,698,859.49

Source: FEMA Policy and Loss Data, August 2024

Vulnerability of the Built Environment

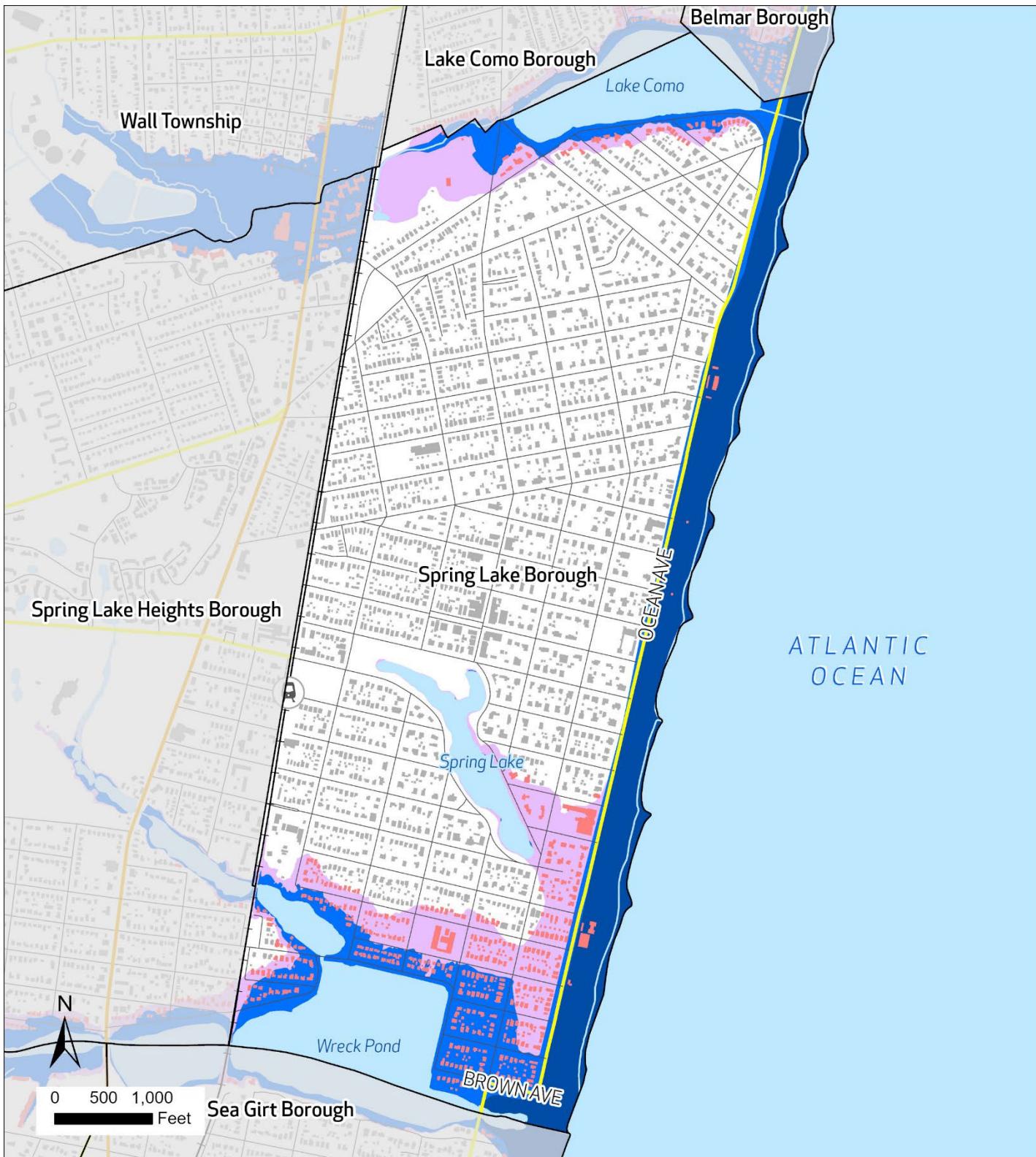
The Special Flood Hazard Area (SFHA) in the Borough of Spring Lake is primarily located adjacent to the main waterbodies of the Borough including Spring Lake, Wreck Pond, Lake Como, and the Atlantic Ocean. Approximately 27.2 percent of the total area of Spring Lake lies within the 1% annual chance flood zone as defined by FEMA. An additional 8.8 percent of the area of the municipality is in the 0.2% annual chance flood zone.

About 68.9 percent of Spring Lake is considered developed. Of the developed parcels of the town, 12.8 percent fall within the 1% annual chance flood zone and 8.6 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	
Developed Parcels	5.3%	8.6	0.0%
Exposed Land Area	27.2%	8.8%	2.4%

During the planning process, Spring Lake identified critical facilities which function as community lifelines. These facilities provide the most fundamental services in the community that, when stabilized, enable all other aspects of society to function. The municipality identified 11 total facilities. Of these facilities two are located within the floodplain and none are within the area projected to be inundated under sea level rise.

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



Flood Risk

Spring Lake Borough

FEMA Flood Zone

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

— County Routes

— Local Roads

— Rail Lines



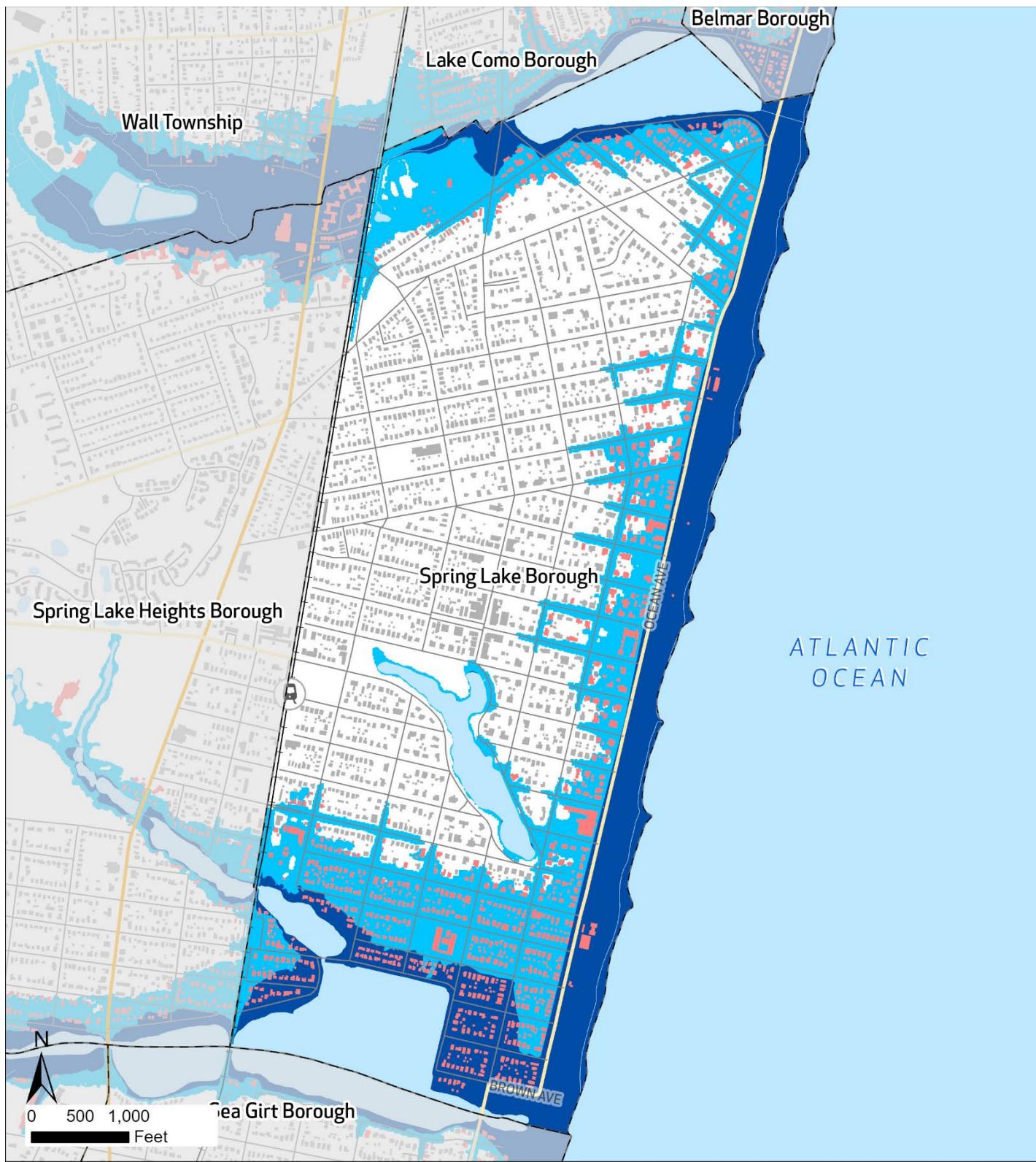
Municipal Boundaries

Building Footprints

Building Footprints within

Floodp

Source: FEMA NJDEP, NJOIT, NJTransit



NJ Inland Design Flood Elevation

Spring Lake Borough

FEMA Flood Zone

Current Base Flood Elevation (1%)

NJ Inland Design Flood Elevation

FEMA BFE (1%) plus 3 Feet

County Routes

Local Roads

Railroad

NJ Transit Rail Station

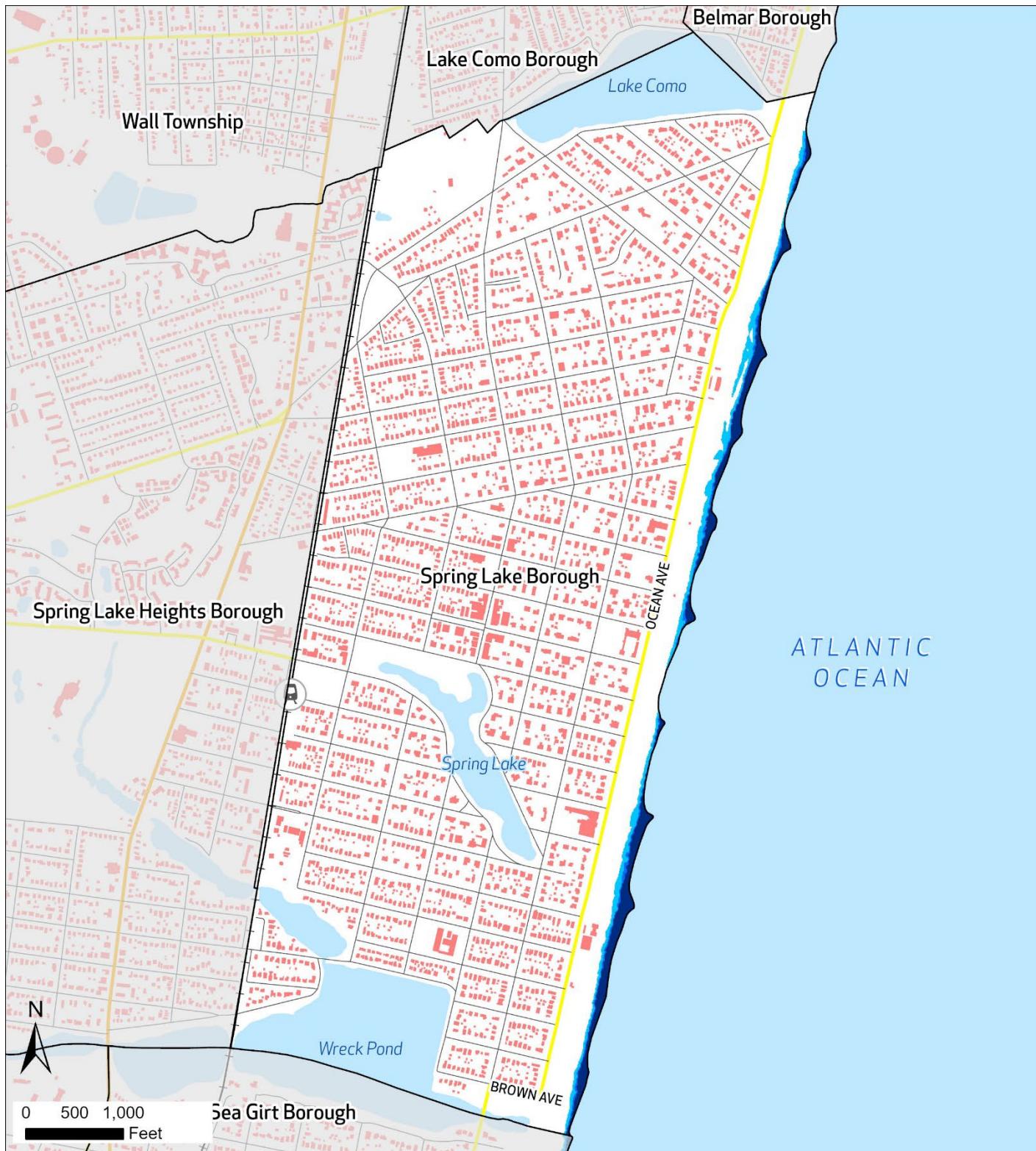
Municipal Boundaries

Water

Building Footprints

Building Footprints within IDFE

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



Permanent Inundation Under Sea Level Rise (SLR) Scenarios

Spring Lake 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
- NJTransit Rail Station

Source: NOAA, NJDEP, NJOIT, NJTransit



Wildland Urban Interface (WUI) Classification

Spring Lake Borough

- Intermix
- High or Medium Density Housing
- No Housing

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

- Municipal Boundaries
- Building Footprint
- Water

Source: USFS, NJDEP, NJDOT, NJTransit

CAPABILITY ASSESSMENT

Planning & Regulatory Capabilities

Spring Lake 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		06/01/2020	Controls development in flood prone areas
Capital Improvement Plan	X		06/01/2024	Improves stormwater quality
Local Emergency Operations Plan/Continuity of Operations Plan	X		2022	Preparedness and mitigation
Floodplain Development Ordinance	X		09/01/2024	Restricts Development with more stringent building requirements
Floodplain Management Plan	X		09/01/2024	Restricts Development with more stringent building requirements
Stormwater Management Ordinance	X		02/25/2025	Improves water quality and stormwater storage
Stormwater Management Plan	X		09/01/2024	Improves water quality and stormwater storage
Watershed Management Plan		X	09/01/2024	Improves water quality and stormwater storage
Sheltering Plan	X		2022	Provides shelter during emergencies
Evacuation Plan	X		2022	Provides a means of egress for evacuation
Substantial Damage/Improved Structures Response	X		09/01/2024	Post disaster evaluation of structures that need to be fortified
Repetitive Loss Plan		X		
Disaster Debris Management Plan	X		09/01/2024	Temporary debris disposal locations to promote recovery operations
Tracking elevation certificates and/or Letter of Map Change	X		09/01/2024	Ensures development meets flood height standards
Post-Disaster Recovery Plan	X			Promotes a quick recovery process
Current/recent redevelopment plans or studies		X		
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

Spring Lake Borough has the following Administrative and Technical capabilities:

Position	Yes	No	Explanation
Floodplain Administrator	X		Christine Bell
Grant Writer	X		Peter Avakian Consulting Engineers
Staff trained to support mitigation	X		DPW
Existing mutual aid or technical assistance agreements to support hazard mitigation projects	X		County of Monmouth
Non-governmental organizations/other partners that work with the municipality on mitigation projects	X		Red Cross, Monmouth County Health Department
Organizations that work with socially vulnerable or underserved populations		X	

Education and Outreach Capabilities

Spring Lake Borough has the following Education and Outreach capabilities:

Education & Outreach Capability	Yes	No	Explanation
Communicate natural and human-based hazards to the public	X		Communicate to residents by email, community bulletin, radio, paper, code red, code blue and social media
StormReady		X	,
Firewise USA		X	
Severe Weather Awareness Week		X	
Community Rating System (CRS)	X		

Financial Capabilities

Within the last five years, Spring Lake 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 HMGPs		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		
Other ongoing efforts to build additional financial capabilities		X	

Additional Capability Assessment Information:

- Spring Lake 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 (CRS) Classification:** 6
- **Sustainable Jersey Participation Status:** Bronze

MITIGATION STRATEGY

Overview and Progress Since Last Plan Update

The Borough of Spring Lake has placed hazard mitigation and resilience as a high priority. Multiple hazard mitigation projects have been designed and constructed to improve the stability of our coastal shores and to manage our stormwater management infrastructure. The Borough continues to make the community more resilient by upgrading infrastructure and by controlling development in flood prone areas. The Spring Lake Office of Emergency Management has updated our Emergency Operations Plan and provided a plan for evacuation routes, public communication and temporary shelters. We currently have funding and a plan in place to perform dredging in Lake Como to provide adequate storm water storage, water quality and storm water management.

Completed or Removed Actions

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
Action 47-01	Install Wreck Pond-Sluice Gate	The installation of sluice gates on the existing Wreck Pond outlet control structure. Prior to a major storm event, the gates would be closed to prevent flooding.	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge	N/A	Borough Engineer	FEMA, HMGP Grant and the Borough of Spring Lake	\$300,000	N/A	Completed	Stormwater management, climate change (rising sea levels will have an impact)
Action 47-02	Dredge Wreck Pond: Phase III and Remove Dredge Materials from Wreck Pond to Another Location	The dredging will result in the removal of approximately 20,000 cubic yards of material. Work will be performed by Monmouth County as a shared service. Materials dredged from the middle of the pond cannot be reused on the beach and must be trucked out.	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge	N/A	Borough Engineer	FEMA, HMGP Grant and the Borough of Spring Lake	\$300,000	N/A	Completed	Ongoing Maintenance Required on 5-year cycle (one cycle taking 5 years for full project). Took on tasks from withdrawn Action 47-08. Stormwater management, climate change (rising sea levels will have an impact)
Action 47-03	Reconstruct the Sand Dune at Pier Beach	Reconstruct the 20-foot-high mature sand dune for protection from tidal flooding and will provide a buffer against wave action and over-wash.	Flood, Wave Action, Nor'easter, Hurricane and Tropical Storm, Storm Surge	N/A	Borough Engineer	FEMA HMA, Army Corp. of Engineers, NJDEP, and Borough of Spring Lake	\$100,000	N/A	Completed	Completed - ongoing maintenance required. On annual cycle Stormwater management, climate change (rising sea levels will have an impact)
Action 47-04	Bypass Culvert from the Emergency Spillway to Ocean	Install an additional outflow pipe from Wreck Pond to the Atlantic Ocean. Project will double the current outflow	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge	N/A	Borough Engineer, DEP, United States Fish and Wildlife, remainder	Grant of \$2.0 million from the US Fish and Wildlife/ remainder	\$4,300,000	N/A	Completed	Stormwater management, climate change (rising sea levels will have an impact)

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
		capacity of the Pond during a heavy rainfall event.			Coordinate with Sea Girt	from Borough and Sea Girt				
Action 47-05	Lake Como Outflow Reconstruction Project	Project will consist of construction of new outfall structure(s) from Lake Como to Ocean.	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge	N/A	Borough Engineers from Spring Lake, lake Como and Belmar	Monmouth County, NJDEP, FEMA, Spring Lake, Lake Como and Belmar	\$2,500,000	N/A	Completed	Stormwater management, climate change (rising sea levels will have an impact)
Action 47-06	Remove of Dredge Materials from Wreck Pond to Another Location	Materials dredged from the middle of the pond cannot be reused on the beach and must be trucked out. This results in higher costs for the Borough.	Flood, Nor'easter, Hurricane and Tropical Storm	N/A	Borough	Municipal budget		N/A	Withdrawn	Withdrawn to merge with (Completed) Action 47-02.
Action 47-07	Purchase and Install Generators for Critical Facilities	Generators for Borough Hall, HW Mountz School, recreation center, and the fire house/first aid station.	All Hazards	N/A	Borough	FEMA HMA	\$150,000	N/A	Completed	New warming shelter (rec center) - not in a floodplain but low lying.

New and Ongoing Actions

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
Action 47-08	Improve Water Quality of Wreck Pond	Project will use dedicated funding to implement improvements identified in the Wreck Pond Infrastructure Assessment. The improvements include repair of piping defects of the 5,000 acres watershed.	Flood	High	Borough Engineer	Project funded by NJEIT loan	\$500,000.00	1 year	Ongoing	Shared services agreement - county v. municipal roads determine improvement implementation. Working with Spring Lake Heights and Wall Township. Ongoing work is maintenance and largely out of jurisdiction. Stormwater management, climate change (rising sea levels will have an impact)

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
Action 47-09	Acquire, elevate, or relocate buildings and infrastructure in flood prone areas, with a focus on Repetitive Loss (RL) and Severe Repetitive Loss (SRL) properties - focus on pump stations, wells, and public municipal infrastructure.	Elevate approximately 100 flood-prone structures that are below the approved base flood elevations, specifically RL/SRL properties.	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Borough Engineers from Spring Lake	FEMA HMA	\$100,000.00	2 years	Ongoing	Ongoing - some pump stations have been elevated (Manasquan on South Blvd.). Altered action to expand beyond 'residential structures'. Building resilience, climate change (rising sea levels will have an impact)
Action 47-10	Target Harden Police Headquarters with Bollards and Surveillance Cameras	Install bollards and surveillance around Police Headquarters to increase security.	Terrorism	Medium	Borough Police	Homeland Security grants	\$75,000	1 year	Ongoing	Stormwater management, climate change should not have an impact
Action 47-11	Divine Park Outlet Structure	Design, plan, build outlet structure for Spring Lake to Atlantic - Need 2,000' of linear pipe restoration.	All Hazards	Medium	Township Engineer/DEP		\$1.8 Million	5 Years	New	Stormwater management, climate change (rising sea levels will have an impact)