

# 48 – SPRING LAKE HEIGHTS BOROUGH

## PLANNING TEAM AND PARTICIPATION

Name	Title	Participation
Jim Giuliano	Emergency Management Coordinator	Point of Contact, attended Municipal Meeting
Joe May	Municipal Engineer/DPW Director	Attended internal meeting to update appendix
Christine Bell	Flood Manager	Attended internal meeting to update appendix
Janine Gillis	Deputy Administrator	Attended internal meeting to update appendix
DSG Casey Willms	Police Dept Representative	Attended internal meeting to update appendix

## COMMUNITY PROFILE

### Overview

Spring Lake Heights is a borough located in the southern coastal portion of Monmouth County, New Jersey. Established in 1927, the Borough describes itself as a blend of old and new, with an integration of historic buildings meeting the needs of present and future residents. The largely residential community is an inland borough, bordering Spring Lake to the east, Sea Girt to the south, and Belmar to the north. Proximity to local beaches, commercial areas, transit, and services have made Spring Lake Heights a popular year-round residential community.

The Borough of Spring Lake Heights features residential and commercial development, and is home to two large golf courses, Spring Lake Golf Club and Fairway Mews Community and Golf Club, which make up much of the central acreage of Spring Lake Heights. Wreck Pond and the North Branch of the Wreck Pond Brook makes up a southern border of the township before outflowing to the Atlantic through Wreck Pond Inlet in Spring Lake.

With the Borough approaching full build out, the 2019 Master Plan Reexamination Report addresses the continued maintenance of open space and establishing long-term goals for the environmentally sensitive areas of the municipality. Borough officials continue to guide growth away from environmentally sensitive areas, directing it to more suitable locations while recognizing a lack of vacant developable land to meet the many competing needs in the community.

### Land Use, Development, & Growth

Spring Lake Heights is a predominantly residential community and home to substantial commercial and publicly owned land. From 2015 to 2020, the community underwent minimal change in its land use composition; urban or developed land accounted for nearly 92 percent of its total area during this period. Although the Borough's forested land and barren land diminished by 6 acres and 2 acres respectively, and its urban or developed land grew by 9 acres, its overall land use composition remained largely the same.

Spring Lake Heights is primarily a residential community. In 2022, 48% of the total land accounted for Residential use and 25% accounted for Commercial use. According to NJDEP's Land Use Land Cover dataset, between 2015 and 2020, Spring Lake Heights Borough's barren land increased by 6.3 -acres. Throughout this period, the share of urban/developed land was roughly 80% of the total Borough's total area.

Land Use Type	Total Acres (2015)	Total Acres (2020)	Percent Change
Agriculture	0.0	0.0	>0%
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 Heights is largely built out and has experienced no major development or infrastructural projects over the past five years. The borough continues to be home to single-family home development and small redevelopment projects.

There is one ongoing residential redevelopment project building townhomes, located along the railroad line which makes up Spring Lake Heights’s eastern border with Spring Lake.

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

No known anticipated major development or infrastructure projects in Spring Lake Heights over the next five years.

**Demographics & Vulnerable Populations**

This plan analyzed census-derived data on population trends and population age distributions to help illustrate potential vulnerability within the borough. A population increase or decrease can illustrate potential hazard vulnerability through development pressures on the built environment, or through physical and social impacts of marked population loss. A community with a large share of population under age five may indicate vulnerabilities in hazard response, resource allocation, and evacuation – FEMA identifies that the pediatric population is disproportionately affected during disasters, and requires special consideration in categories of anatomy and physiology, psychological, and education vulnerabilities (FEMA, 2022, NLM, 2022). Individuals over age 65 are a growing share of the country’s population and often represent the greatest share of deaths from extreme weather events and other natural disasters. A larger share of population over 65 may indicate local vulnerabilities to hazard events both before and after a disaster occurs – these populations may have mobility needs, uneven access to resources, and limited social networks that makes pre-disaster engagement challenging (FEMA, 2023).

The Borough of Spring Lake Heights has an estimated population of 4,864, of which an estimated 5.3% are under age 5 and 23.7% are over age 65. Spring Lake Heights experienced an estimated 4.7% population growth over the 2013-2017 and 2018-2022 ACS survey periods. With an aging population making up nearly twenty-four percent of their total community, Spring Lake Heights 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 nearly five percent population growth across two five-year survey periods may illustrate shifts in the built environment which may impact hazard vulnerability.

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

Demographics Summary	
Total Population (2018-2022 ACS 5-year Estimates)	4,864
Population Change since 2017	4.7%
Percent of Population Age < 5	5.3%
Percent of Population > 65	23.7%

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>		
Flooding	Extreme Temperatures	Lightning
Hurricane/Tropical Storm/Nor'easter	Tornado	Drought
Storm Surge	Winter Storm	Earthquake
		Wildfire
<b>Human-made Hazards</b>		
Power Failure	Cyber Attack	Civil Unrest
	Economic Disruption	
	Terrorism	
	Pandemic	

The Borough ranked Dam Failure, Landslide, Wave Action, and Coastal Erosion as N/A.

## Hazard Ranking Explanation

Spring Lake Heights experiences regular nuisance flooding, which is related to both storm events and heavy rain. This type of flooding remains a high priority for mitigation. Due to the location of Spring Lake Heights and its border with coastal Wreck Pond, concerns about storm surge and related impacts, including flooding, also remain a high priority for the Borough.

Other hazards that are ranked as 'Low' have not posed significant concerns for Spring Lake Heights in recent years.

## Significant Hazard Events Since Last Plan Update

Spring Lake Heights reports regular nuisance flooding, but there have been no significant floods in recent years. Specifically, Lake Avenue has experienced some regular flooding. Additionally, recurring localized flooding occurs on Route 71 near Spring Lake Heights High School (at Route 71 and Brighton Avenue) from Black Creek, which runs behind the school, a critical infrastructure site. If a rain event upstream is large enough, this overflow can reach Spring Lake Golf Club as well.

No other significant hazard events have been noted since the last plan update.

## 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 Heights. As a coastal community, Spring Lake Heights is particularly vulnerable to rising sea levels and increased storm intensity. The New Jersey Department of Environmental Protection (NJDEP) projects that sea levels along the Jersey Shore could rise between 7 and 21 inches by 2100. This rise in sea level will exacerbate coastal erosion, increase the frequency and severity of coastal flooding, and lead to more sustained extreme storm surges. These changes will likely result in greater property damage, more frequent disruptions to community life, and increased costs for mitigation and recovery efforts. Additionally, climate change is expected to bring more intense and frequent extreme weather events, such as Nor'easters and hurricanes. The borough will need to invest in more resilient infrastructure and emergency preparedness measures to mitigate the effects of these storms. Overall, the impacts of climate change on Spring Lake Heights will require a comprehensive and proactive approach to hazard mitigation and community resilience. By addressing these challenges head-on, Spring Lake Heights can better protect its residents and infrastructure from the growing risks posed by climate change.

Rising temperatures and shifting precipitation patterns will likely increase the frequency and intensity of extreme weather events such as Nor'easters, hurricanes, and heavy rainfall. This will exacerbate existing flooding issues, particularly in areas adjacent to the tributaries of the Wreck Pond, which already lie within the 1% and 0.2% annual chance flood zones. The increased flooding risk will necessitate more robust flood management and mitigation strategies to protect residential properties, critical infrastructure, and community lifelines.

## RISK ASSESSMENT

### National Flood Insurance Program (NFIP) statistics

Spring Lake Heights Borough	
Initial FIRM Date	12/15/81
Effective FIRM Date	6/15/2022
Number of Policies In-Force:	83
Total Losses:	47
Total Payments:	\$926,883.63
Number of RL Properties:	1
Number of Mitigated RL Properties:	0
RL – Total Losses:	2
RL – Total Paid:	\$17,996.31
Number of SRL Properties:	2
Number of Mitigated SRL Properties:	0
SRL – Total Losses:	8
SRL – Total Paid:	\$2,38,348.49

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 Heights is primarily located adjacent to the main waterbodies of the borough including Wreck Pond in the south and Polypod Brook in the north of town. Approximately 6.3 percent of the total area of Spring Lake Heights lies within the 1% annual chance flood zone as defined by FEMA. An additional 1.3 percent of the area of the municipality is in the 0.2% annual chance flood zone.

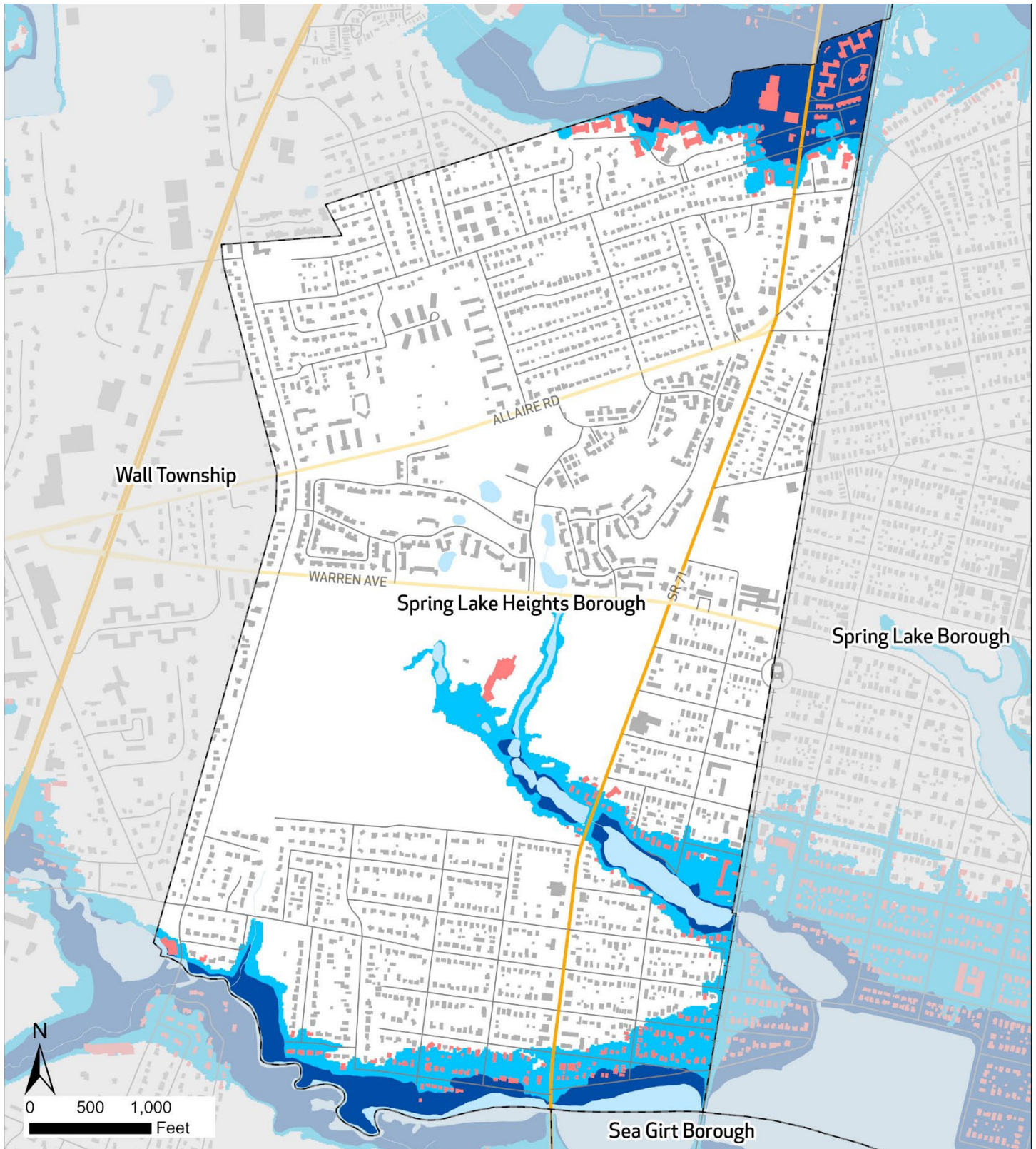
About 80.3 percent of Spring Lake Heights is considered developed. Of the developed parcels of the town, 4.3 percent fall within the 1% annual chance flood zone and 1.1 percent are within the 0.2% annual chance flood zone. This illustrates that the developed area of the municipality is generally in line with overall flood risk.

	Percentage in the 1% Floodplain	Percentage in the 0.2% Floodplain	5 feet of Sea Level Rise
Developed Parcels	8.3%	1.1%	NA
Exposed Land Area	7.1%	1.3%	NA

During the planning process, Spring Lake Heights 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 six total facilities. Of these facilities, none are within floodplain.

	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** Spring Lake Heights 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

Ⓜ NJ Transit Rail Station

— Municipal Boundaries

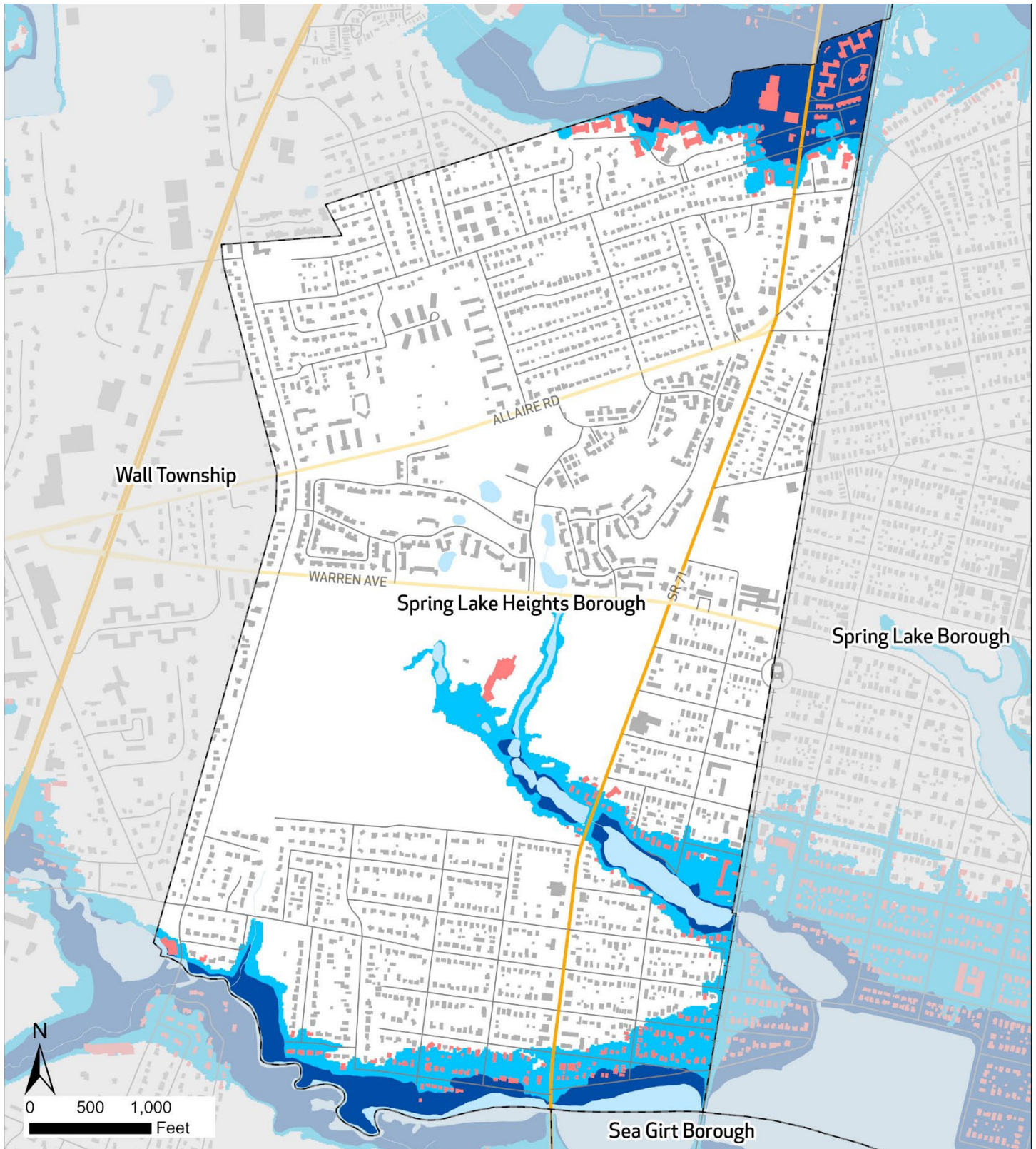
■ Water

■ Building Footprints

■ Building Footprints within  
IDFE

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





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■ Current Base Flood  
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Feet

— State Routes

— County Routes

— Local Roads

— Railroad

Ⓜ NJ Transit Rail Station

— Municipal Boundaries

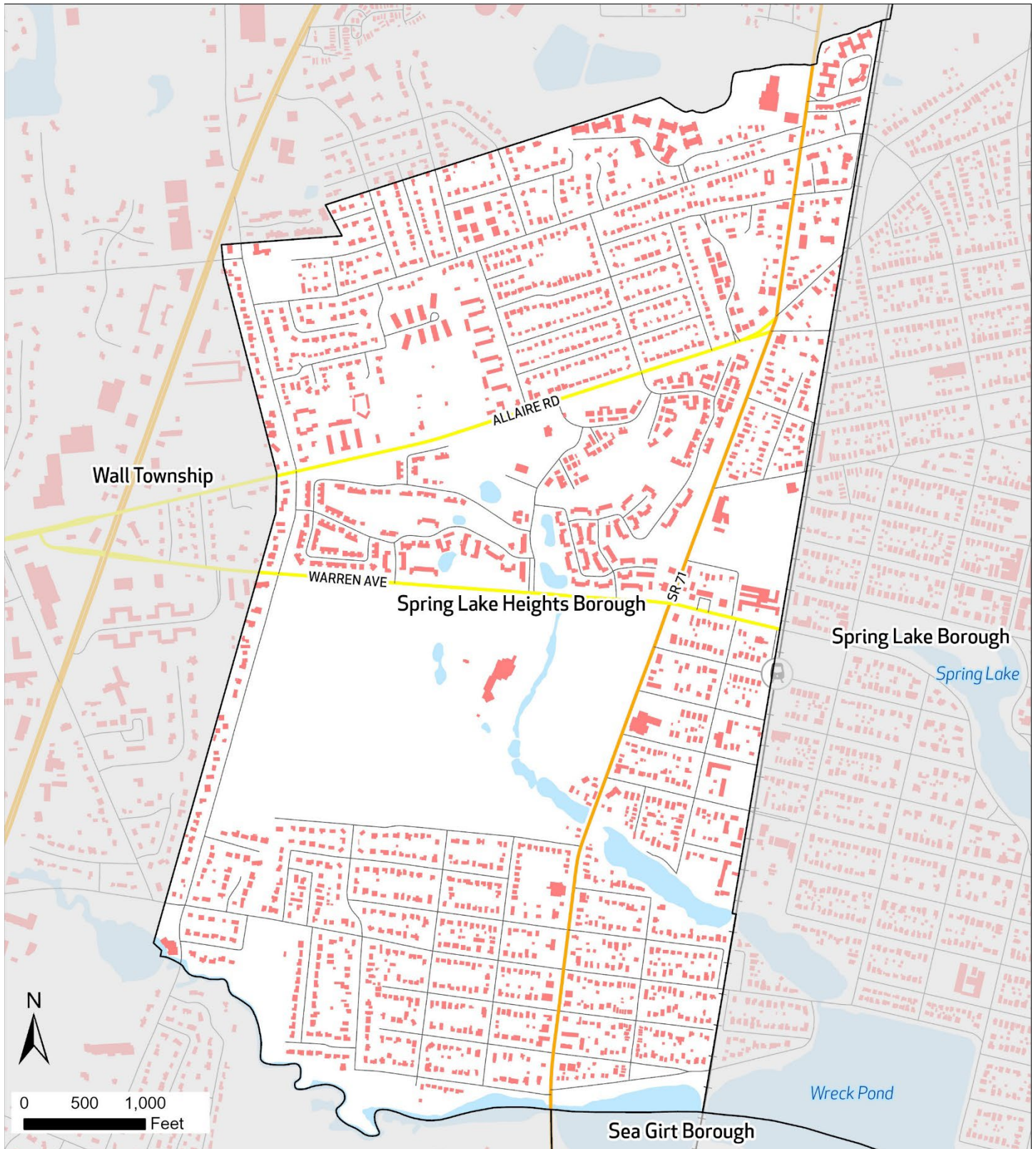
■ Water

■ Building Footprints

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IDFE

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





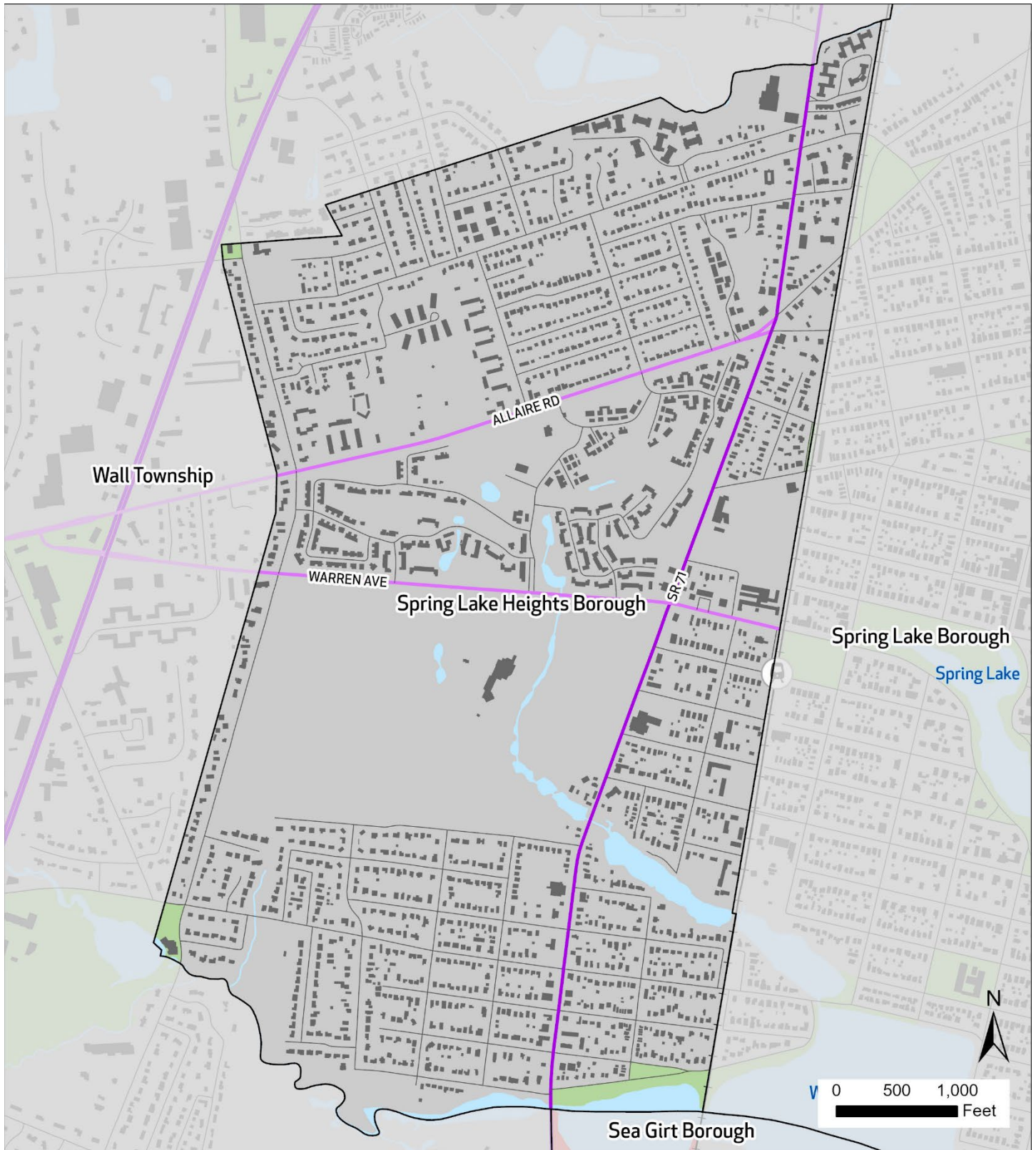
### Permanent Inundation Under Sea Level Rise (SLR) Scenarios

Spring Lake Heights Borough

<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #002060; margin-right: 5px;"></span> Area Inundated Under 2 Feet SLR</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #0070C0; margin-right: 5px;"></span> Area Inundated Under 3 Feet SLR</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #4682B4; margin-right: 5px;"></span> Area Inundated Under 5 Feet SLR</li> </ul>	<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; border-bottom: 2px solid #FF8C00; margin-right: 5px;"></span> Interstate Highways</li> <li><span style="display: inline-block; width: 15px; border-bottom: 2px solid #FFD700; margin-right: 5px;"></span> State Routes</li> <li><span style="display: inline-block; width: 15px; border-bottom: 2px solid #FFFF00; margin-right: 5px;"></span> County Routes</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid #000000; margin-right: 5px;"></span> Local Roads</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid #000000; margin-right: 5px;"></span> Rail Lines</li> <li><span style="display: inline-block; width: 15px; height: 15px; border: 1px solid #000000; border-radius: 50%; text-align: center; line-height: 15px; margin-right: 5px;"></span> NJ Transit Rail Station</li> </ul>	<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; border: 1px solid #000000; margin-right: 5px;"></span> Municipal Boundaries</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FF0000; margin-right: 5px;"></span> Building Footprint</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #ADD8E6; margin-right: 5px;"></span> Water</li> </ul>
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Source: NOAA, NJDEP, NJOIT, NJTransit





# **Wildland Urban Interface (WUI) Classification**

Spring Lake Heights Borough

- Intermix
- High or Medium Density Housing
- No Housing

- State Routes
- County Routes
- Local Roads
- Rail Lines
- NJ Transit Rail Station

- Municipal Boundaries
- Building Footprint
- Water

Source: USFS, NJDEP, NJOIT, NJTransit



## CAPABILITY ASSESSMENT

### Planning & Regulatory Capabilities

Spring Lake Heights 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		11/19	Ensure development that promotes sustainability and mitigates hazard risk.
Capital Improvement Plan	x		2024	Expenditure for risk mitigation
Local Emergency Operations Plan/Continuity of Operations Plan	x		10/23	Supports All Hazards
Floodplain Development Ordinance	x		2022	Manage Floodplain Development
Floodplain Management Plan	x		2022	Manage Flood Plain Development
Stormwater Management Ordinance	x		2024	Mitigate Risk from Stormwater
Stormwater Management Plan	x		2022	Mitigate Risk from Stormwater
Watershed Management Plan	x			
Sheltering Plan	x		10/23	Protection of Human Life
Evacuation Plan	x		10/23	Protection of Human Life
Substantial Damage/Improved Structures Response		x		
Repetitive Loss Plan				
Disaster Debris Management Plan	x		10/23	Post Disaster Return to Full Community Functioning
Tracking elevation certificates and/or Letter of Map Change	x		Ongoing	Flood Structure Mitigation
Post-Disaster Recovery Plan	x		Ongoing	Public Assistance and Individual Assistance Engagement
Current/recent redevelopment plans or studies		x		
Community Wildfire Protection Plan		x		
Climate Adaptation Plan		x		
Other Plans that discusses hazard mitigation	x		10/23	
Other ordinance and regulation that mitigate the impacts of natural hazards	x			Various Codes and Ordinances that serve to address potential infrastructure, residential or commercial activity that may introduce risk to the community

### Administrative and Technical Capabilities

Spring Lake Heights Borough has the following Administrative and Technical capabilities:

Position	Yes	No	Explanation
Floodplain Administrator	x		Management of Floodplain
Grant Writer	x		Borough Engineer
Staff trained to support mitigation	x		DPW/Emergency Management/Administrative Staff
Existing mutual aid or technical assistance agreements to support hazard mitigation projects	x		Both Formalized and informal Agreements with Neighboring Communities and County
Non-governmental organizations/other partners that work with the municipality on mitigation projects	x		South Monmouth Regional Sewage Authority Fairway Mews Condominium Association Spring Lake Golf Club Other Community Partners
Organizations that work with socially vulnerable or underserved populations	x		Emergency Management Register Ready Administration County Health and Division of Aging

### Education and Outreach Capabilities

Spring Lake Heights Borough has the following Education and Outreach capabilities:

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

### Financial Capabilities

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

Financial Capability	Yes	No	Explanation
FEMA BRIC			
FEMA FMA			
FEMA Public Assistance			
FEMA HMGP	x		Elevation of Pump Station
Non-FEMA Federal Funding Programs			
Other FEMA resources			
NJ Infrastructure Bank			
Other state municipal assistance or grant programs			
Evaluation process on the prioritization of risk reduction projects against other local activities	x		Risk reduction is considered amongst other projects
Other ongoing efforts to build additional financial capabilities	x		Grants if available

### Additional Capability Assessment Information:

- **Sustainable Jersey Participation Status:** Registered



## MITIGATION STRATEGY

### Overview and Progress Since Last Plan Update

The Borough of Spring Lake Heights is committed to fostering a robust shore community by engaging in both planning and mitigation actions which serve to build resiliency, sustainability and which recognize and manage risk on an ongoing basis. The Borough will continue to seek broad stakeholder participation in this effort and maintain a keen awareness of climate change as it evaluates risk/all-hazards with local, state and federal partners. Major weather events and nuisance flooding remain a future focus.

### Completed or Removed Actions

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
48-01	Hazard Zoning & High-Risk Hazard Land Use Ordinances	Revise zoning ordinance to address development in hazardous areas and also implement changes in design requirements to develop structures that are flood resilient. Introduce and adopt development ordinances which require compliance with new base flood elevation, mandatory flood proofing, and other similar measures.	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge	N/A	The Borough Mayor and Council	Planning Grants	\$50,000	N/A	Completed	
48-02	Increase Education and Risk Awareness	Public outreach includes discussion and handouts at Municipal Council meetings or other publicly supported events and meetings.	All Hazards	N/A	The Borough Mayor and Council	Future Municipal Grants	\$75,000	N/A	Completed	
48-03	Protect from Tidal Flooding	Continue to implement mitigation practices such as development regulations and enforcement of mitigation practices in flood prone areas. Enforce zoning ordinances which restrict development in hazardous areas and also implement changes in design requirements to develop structures that are flood resilient.	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge	N/A	The Borough Mayor and Council	Future Municipal Grants	\$75,000	N/A	Completed	
48-04	Elevate and Secure Pump Stations	The Black Creek Pump Station is located at the south end of Sixth Avenue along the northern bank of the North Branch of Wreck Pond. The elevation of this pump	Flood, Nor'easter, Hurricane and	N/A	The Borough Engineer	HMGP Grant	\$1,400,000	N/A	Completed	

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
		station does not meet the recommended freeboard. The Shore Road Pump Station is located along the north shore of Wreck Pond. The elevation of this pump station is below the 100-year flood elevation.	Tropical Storm							
48-05	Elevate or Retrofit of Existing Utilities above the BFE	Raise existing utilities above expected flood levels to reduce flood damage. The utility improvements include the elevating of outdoor HVAC equipment, relocation of overhead electrical services to underground conduit and weather proofing of these services as required.	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge	N/A	The Borough Mayor and Council	Future Municipal Grants	\$36,000	N/A	Completed	

### New and Ongoing Actions

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
48-06	Acquire and demolish or relocate buildings and infrastructure in flood prone areas, with a focus on Repetitive Loss (RL) and Severe Repetitive Loss (SRL) properties	Acquisition of 11 flood-prone properties in the Borough.	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Borough Mayor and Council	FEMA HMA	\$3,933,000	2 years	Ongoing	<i>Currently looking for funding.</i>
48-07	Elevate buildings and infrastructure in flood prone areas, with a focus on Repetitive Loss (RL) and Severe Repetitive Loss (SRL) properties	Elevation of 12 properties in the Borough previously located in the SFHA.	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	The Borough Mayor and Council	FEMA HMA	\$600,000	4 years	Ongoing	
48-08	Desilt and De-snag the North Branch of Wreck Pond	Desilt and De-snag the North Branch of Wreck	Flood, Nor'easter, Hurricane	Medium	Borough Public Works	Municipal budget	\$450,000	1 year	Ongoing	



Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
		Pond to allow for more stormwater infiltration.	and Tropical Storm							
48-09	Upsize or Replace Stormwater Pipe under Route 71	Route 71 is constantly flooded in front of Spring Lake Heights Elementary School. This is due to NJDOT tying into the stormwater pipe and as a result, the pipe is over capacity.	Flood	High	NJDOT, Borough of Spring Lake Heights	NJDOT, Municipal funding, FEMA HMA	\$800,000	2 years	Ongoing	Coordinate with engineers to learn what has been done - some progress made but not complete.
48-10	Upsize the Culvert under NJ Transit and De-slag and Clean Polly Pod Brook	Coordinate with Wall Township and Spring Lake on cleaning debris, such as fallen trees, from the Brook. Additionally, upsize the culvert under New Jersey Transit's railroad.	Flood, Nor'easter, Hurricane and Tropical Storm	Medium	Wall Township, Spring Lake, Spring Lake Heights, and New Jersey Transit	Municipal budget, NJ Transit, County budget		2 years	Ongoing	Culvert partially cleaned out and deslagged but still flooding in town center.
48-11	Increase Security at the Borough Water Tower	Install a surveillance camera system and more secure fencing around the water tower.	Terrorism	Medium	Borough Police, Public Works	Homeland Security grants	\$75,000	2 years	Ongoing	Partially complete- there is secure fencing but no surveillance.
48-12	Purchase and Install Generator for Spring Lake Heights Elementary School	Spring Lake Heights Elementary School is very secure with a high-tech surveillance camera system, however if power goes down, so does the camera system. Therefore, the school needs backup power.	All Hazards	Medium	Borough Schools, OEM, Public Works	FEMA HMA	\$286,000	1 year	Ongoing	
48-13	Build resilience at DPW site by installing a generator	Currently the Department of Public Works has no standby power – this action would install a generator for DPW building.	Power Failure	Medium	DPW, Municipality		\$75,000	1 year	New	