

**NEW JERSEY ENVIRONMENTAL INFRASTRUCTURE FINANCING PROGRAM
APPLICATION FOR FINANCIAL ASSISTANCE**

LEVEL 2 ENVIRONMENTAL REVIEW

Somers Point Stormwater Projects

Applicant:

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July 2025

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INTRODUCTION

1. Project Overview

The New Jersey Water Bank - NJWB (formerly New Jersey Environmental Infrastructure Financing Program) is a partnership between the New Jersey Department of Environmental Protection (NJDEP) and the New Jersey Environmental Infrastructure Trust (Trust) provide grants and low-cost financing for the design, construction, and implementation of water, sewer, and stormwater projects. The City of Somers Point is applying for funding for several stormwater projects, namely:

- a. **Exton Road Pump Station – Exton Road Pump Station** – This new pump station will be located at the intersection of Exton Road and Yale Boulevard. The scope of work consists of the construction of a pump station and associated infrastructure in order to prevent tidal water from surcharging the upstream stormwater system and to alleviate the damage caused by resulting flooding. The project includes construction of a pump station, wet well, and generator. All buildings, structures, generators, utilities and equipment located in the SFHA must be protected to the 500-year floodplain per ASCE 24 Standard plus incorporating sea level rise, consistent with the critical facilities standard. The building dimensions are 32' x 29'. The proposed pump station will be located out of the wetlands and buffered as confirmed by NJDEP.
- b. **Exton Road Shoreline Stabilization/Living Shoreline - Exton Road Shoreline Stabilization** - There is an existing brackish creek that receives stormwater runoff adjacent to Exton Road that eventually runs to Patcong Creek. This creek is experiencing extreme erosion on its banks and the adjoining property owners are concerned about the erosion continuing onto their properties. It is proposed to stabilize the banks of the creek with gabion rock baskets and a living shoreline of native plants.
- c. **Stormwater Outfall Improvements** - There are three (3) existing outfalls which drain stormwater to the Patcong Creek which are almost completed silted in and are causing stormwater flooding during precipitation events. The scope of work includes extension of the existing outfalls, removal of existing silt in the drainage ditch, and tide check valves. It is anticipated that a Freshwater Wetlands General Permits Number 11 will be required.
- d. **Defeo Lane Stormwater Improvements** – Defeo Lane between Us Route 9 and Edgewood Drive has an existing 64" corrugated metal stormwater pipe that runs under the existing asphalt to an existing outfall off Edgewood Drive that has reached the end of its useful life and is experiencing failure. The area also frequently experiences flooding from large precipitation events since the adjacent Shoprite drainage system ties into the City's stormwater system. The existing metal pipe is proposed to be replaced and a separate 36" stormwater pipe and outfall is proposed to be installed for the stormwater from the existing shopping center. Check valves are also proposed to limit infiltration and flooding from the adjacent Patcong Creek. Due to extensive excavation

required to replace the pipe, the entire width of street will need to be repaved and brought up to ADA standards.

- e. Bay Avenue Living Shoreline and Stormwater Improvements – Bay Avenue between Groveland Avenue and Ocean Avenue consists of eight (8) individual outfalls consisting of deteriorated corrugated metal pipe (CMP) and drains over 125 acres into the bay. The land between Bay Avenue and the salt marsh mostly consists of invasive Phragmites. This project proposes to reduce runoff and improve stormwater quality by creating a living shoreline along Bay Avenue. This will be done by eliminating all outfalls so that stormwater runs along Bay Avenue in a bioretention swale consisting of native plant species to the natural low point along Bay Avenue. A stormwater pump station is proposed to pump stormwater during large storm events. In addition, a living shoreline adjacent to the bay is proposed to eliminate the existing Phragmites and plant native species.
- f. Schoolhouse Lane Pump Station – Located on Schoolhouse Lane between Defeo Lane and Chapman Boulevard is a low spot in the roadway with an existing inlet and stormwater pipe that conveys stormwater to Patcong Creek. The City has installed a check valve on this outfall to prevent tidal flooding but during times of high tide and high precipitation events, positive discharge is not possible which has caused flooding. This flooding has caused damage to adjacent homes. Proposed improvements include a small electric pump station to pump precipitation to the Patcong Creek during high tides. All improvements will be made in the existing developed Right-of-Way. The proposed pump station will be located in an already developed area just off the existing curb and discharges to an existing inlet. The pump station is only proposed to operate when an existing check valve is closed and a fairly small pump of 10 HP. No land use permits required, the site is a flood hazard area.
- g. Gulph Mill Road Stormwater Improvements - An existing 36" outfall adjacent to Gulph Mill Road drains approximately 130 acres. The current outfall is below Mean High Water (MHW) and therefore tidal water surcharges the system at high tide, reducing the system's storage capacity. In addition, if precipitation is occurring during high tide, positive discharge of the stormwater is not possible. The city proposes installing a stormwater pump station along Gulf Mill Road to pump stormwater during high tide events with precipitation. Tide check valves will also be installed to prevent tidal water from surcharging the system. In addition, there are two existing smaller outfalls that are proposed to be removed and tied into the stormwater pump station. All improvements, including the proposed pump station, will be completed in the existing developed Right-of-Way. Due to the extensive excavation of the project, street repaving and associated ADA improvements will be required.
- h. Pierson/Dawes Stormwater Improvements – Located between Pierson Avenue and Dawes Avenue in the rear of the existing lots is a natural low area that floods during significant precipitation events. This flooding has caused damage to basements, garages, and sheds of the adjacent homes and creates issues with standing water and mosquitos breeding. Proposed improvements

include a small electric pump station and additional stormwater piping to convey stormwater to Bay Avenue. The proposed pump station will be located in an already developed in the rear of two existing lots where a natural low area occurs and discharge to an existing inlet. The pump station is only proposed to operate when an existing check valve is closed and a fairly small pump of 10 HP. Limited area of disturbance to existing developed land (grass). No permits are expected.

1. Need for The Proposed Activity

The City of Somers Point is surrounded on three sides by water with the Great Egg Harbor Bay to the east and south and the Patcong Creek to the west. The City has a total area of 5.23 square miles including 4.01 square miles of land and 1.22 square miles of water. Given its location, the City has continued to implement an aggressive stormwater management plan to reduce the occurrence of flooding and to improve the quality of life in the community.

2. Project Description

The City plans to design, permit, and implement ten stormwater projects that are described in detail above. These projects will reduce nuisance flooding and storm damage.

All projects will be designed and constructed in accordance with ASCE-24-14 or latest version, if applicable. The design and construction will be complete in full compliance with all applicable federal, state, and local floodplain and land use laws and regulations including 44 CFR 60.3 (floodplain management criteria).

PROJECT AREA CONDITIONS

1. Location and Physiography

The project area covers the City of Somers Point. Somers Point is located at the southernmost point of Atlantic County and had a population of 10,009 in 2020. Somers Point is currently declining at a rate of -0.55% annually and its population has decreased by -7.24% since the most recent census, which recorded a population of 10,790 in 2010. A regional map of the City is provided in the appendices.

2. Topography and Drainage

Due to its proximity to the coast, Somers Point has very low and flat elevation with little changes above 3 to 5 feet.

3. Wetlands/ Floodplains

Though wetlands exist inside the boundaries of Somers Point, the primary focus of this project is the developed areas of the city which do not contain wetlands.

4. Bedrock / Geological Formations

1. Regional Geology

According to NJDEP's Bedrock Geologic Map, the majority of Atlantic County exists on silt, sand and clay from the Paleogene and Neogene periods.

2. Local Geology/Soils

Somers Point and the surrounding coast is built on beach and estuarine deposits from the Holocene period.

5. Vegetation

The majority of the project area built-upon with roads, buildings, and other impervious surfaces. There are, however, occasional parks, such as the John F. Kennedy Park that provide pockets of trees and other vegetation.

6. Developed Areas/Buildings

Somers Point is largely developed with a mix of residential, commercial, recreation, transportation, and athletic fields land cover types. There are limited industrial zones and the conserved land in the city generally relates to the surrounding wetlands and a large golf course.

7. Surrounding Areas

The surrounding communities are the City of Linwood to the north, Longport and Ocean City to the east, Upper Township to the south and Egg Harbor Township to the west.

8. Environmental Impacts

a. Wetlands

Since the project area focuses on developed areas, no wetlands are located within the limits of each project area.

b. Flood Hazard Area-Riparian Zone

Since the floodplain is tidal and work will be constructed at or below grade, no adverse impacts to the floodplain will result. Typically, a project of this scope and involvement qualifies for a Permit-by-Rule pursuant to the Flood Hazard Area Control Act Rules at NJAC 7:13 whereby a formal application to the NJDEP Division of Land Use Regulation (DLUR) is not required. However, if the project will disturb more than one (1) acre of land, it is considered a "major project" under the Stormwater Rules at NJAC 7:8. The rules at NJAC 7:13 preclude the utilization of a Permit-by-Rule for major projects, and an Individual Permit would be required. Since all land disturbances will be temporary and only impact developed areas, the DLUR may not require an Individual Permit and the Permit-by-Rule would be applicable. The City will coordinate with the DLUR on this matter and obtain the Individual Permit.

c. Threatened and Endangered Species

Official species lists were obtained from the US Fish and Wildlife Service (USFWS) the project area on March 15, 2022. Please see appendix B for a detailed breakdown.

d. Plant and Animal Communities

The only wildlife present includes species adapted to urban environments (i.e., gray squirrel, Norway rat, etc.) and various passerines (i.e., house sparrow, Northern Cardinal, American Robin, and fish crow, etc.). Furthermore, the project will not result in any permanent above-ground impacts, and all temporarily disturbed areas will be restored upon completion of construction.

e. Soils

Significant adverse impacts to onsite soils are not anticipated.

f. Steep Slopes

The project areas do not contain any steep slopes. Therefore, no adverse impact to steep slopes will occur.

g. Parks and Preserves

Proposed work will result in required improvements and will not detract from or divert an existing parkland use. Therefore, no adverse impact to a park or preserve will result. See Appendix A, Open Space Maps.

h. Air Quality

Construction-related air quality impacts will likely be short-term and include particulate matter in the form of dust (from ground clearing and preparation, grading, stockpiling of materials, onsite movement of equipment and transportation of construction materials), as well as exhaust emissions from material delivery trucks, construction equipment and workers' personal vehicles. Dust emissions typically occur during dry weather and periods of maximum demolition or construction activity or during high wind conditions.

The construction contractor will be responsible for complying with all applicable air quality and vehicle exhaust rules and regulations. No permanent or long-term adverse air quality impacts are expected.

i. Social Impacts

The principal adverse social impact arising from the construction phase of the proposed project will be temporary traffic disruptions, temporary detours, and temporary no access. Noise impacts can be mitigated by confining project activities to normal working hours.

The proposed project would not impact aesthetics, as it consists of temporary disturbance to areas with water meters that will be restored upon completion of construction.

9. Impacts on Cultural Features

The NJDEP State Historic Preservation Office (SHPO) New Jersey Cultural

Resource Geographic Information System (CRGIS) Viewer was reviewed by SCE July 13, 2022. The following describes the results of the review.

There are numerous historical properties located in the project area due to the historic nature of Somers point. However, none of these properties will be affected by the project which is mainly focused on the sewer system and road construction.

ALTERNATIVES ANALYSIS

The purpose of this project is to upgrade the stormwater system in the City of Somers Point.

1. Considered Alternatives

No Action Alternative

As noted, the City of Somers Point is surrounded on three sides and is subject to nuisance and tidal flooding. Constant upgrading of the stormwater system is required due to its age and to address stormwater issues. Life expectancy of stormwater improvements is 30 years. If no action is taken, the quality of life in the community will be negatively impacted.

2. Project Costs

3.

Level 2		
1	Exton Road Pump Station, construction only	\$ 1,880,500
1	Exton Road Shoreline Stabilization/Living Shoreline	\$696,000
2	Stormwater Outfall Improvements	\$541,000
3	Defeo Lane Stormwater Replacement– Bethel to School House, permits	\$1,060,625
4	Bay Avenue outfalls, living shoreline, Stormwater pump station	\$2,063,000
5	School House Drive stormwater pump station	\$148,750
6	Gulph Mill Road Pump Stations, Generators, including paving, permits	\$2,408,900
7	Pierson/Dawes stormwater improvements (natural low area)	\$218,500
	<i>Subtotal</i>	\$ 9,017,275
	Contingencies (5%)	\$ 450,864
	Administration (3%)	\$ 270,518
	Engineering and CM (10%)	\$ 901,728
	Subtotal	\$ 10,640,385
	Total	\$15,273,577.80

4. User Costs

Below is a summary of user fee impacts.

a. Median Annual Household Income of Service Area

Median household income in Somers Point, NJ is \$68,542 in 2023 according to the US Census. Using an inflation rate of 3% annually, the 2025 median household income is \$72,716.

b. User Costs from Proposed Project

The cost of this project will be offset by grants and forgivable loans. The debt service will be included in the municipal tax rate.

c. No Action Alternative

In the no action alternative, the municipal tax rate would increase consistent with historical levels.

5. Basis for Selected Alternative

The selected alternatives represent the most effective solutions for the intended purpose and need.

SUMMARY OF PUBLIC INVOLVEMENT

Stormwater improvements have been included in the City's Capital Plan for several years. The Capital Plan is the topic of discussion as Public Meetings throughout the year.

On January 3, 2022, the City Council of the City of Somers Point adopted Resolution 35 of 2022 adopting the Atlantic County Multi-Jurisdictional Natural Hazard Mitigation Plan, 2021 which included many of the stormwater projects included in this NJEIT funding application.

In March 2022, a resolution was adopted at a public meeting authorizing an NJEIT funding application.

Appendix A

MAPS

Somers Point - Project Area



 Somers Point Boundary


0mi 1.2mi 2.4mi 4.8mi



Level 1 Environmental Review
Somers Point Stormwater Projects
City of Somers Point, NJ

Data Sources: FEMA, NJ GIN, QGIS

Prepared by :
Mihir Rastogi
Rutala Associates

7/11/2022

Somers Point - Open Space Map



 Somers Point Boundary
 Open Space


0mi 1mi 2mi 4mi



Level 1 Environmental Review
Somers Point Stormwater Projects
City of Somers Point, NJ

Data Sources: FEMA, NJ GIN, QGIS

Prepared by :
Mihir Rastogi
Rutala Associates

7/11/2022

Somers Point - Topography Map



 Somers Point Boundary

 Topography Lines (ft)

0mi 1mi 2mi 4mi



Level 1 Environmental Review
Somers Point Stormwater Projects
City of Somers Point, NJ

Data Sources: FEMA, NJ GIN, QGIS

Prepared by :
Mihir Rastogi
Rutala Associates

7/11/2022

Appendix B
US FISH AND WILDLIFE LETTER



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310 Fax: (609) 646-0352



In Reply Refer To:
Project Code: 2022-0063075
Project Name: Somers Point Stormwater Projects

July 13, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

If the enclosed list indicates that any listed species may be present in your action area, please visit the New Jersey Field Office consultation web page as the next step in evaluating potential project impacts: <http://www.fws.gov/northeast/njfieldoffice/Endangered/consultation.html>

On the New Jersey Field Office consultation web page you will find:

- habitat descriptions, survey protocols, and recommended best management practices for listed species;
- recommended procedures for submitting information to this office; and
- links to other Federal and State agencies, the Section 7 Consultation Handbook, the Service's wind energy guidelines, communication tower recommendations, the National Bald Eagle Management Guidelines, and other resources and recommendations for protecting wildlife resources.

The enclosed list may change as new information about listed species becomes available. As per Federal regulations at 50 CFR 402.12(e), the enclosed list is only valid for 90 days. Please return to the ECOS-IPaC website at regular intervals during project planning and implementation to obtain an updated species list. When using ECOS-IPaC, be careful about drawing the boundary of your Project Location. Remember that your action area under the ESA is not limited to just the footprint of the project. The action area also includes all areas that may be indirectly affected through impacts such as noise, visual disturbance, erosion, sedimentation, hydrologic

change, chemical exposure, reduced availability or access to food resources, barriers to movement, increased human intrusions or access, and all areas affected by reasonably foreseeable future that would not occur without ("but for") the project that is currently being proposed.

Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

We appreciate your concern for threatened and endangered species. The Service encourages Federal and non-Federal project proponents to consider listed, proposed, and candidate species early in the planning process. Feel free to contact this office if you would like more information or assistance evaluating potential project impacts to federally listed species or other wildlife resources. Please include the Consultation Tracking Number in the header of this letter with any correspondence about your project.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Migratory Birds
- Wetlands

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
(609) 646-9310

Project Summary

Project Code: 2022-0063075
Event Code: None
Project Name: Somers Point Stormwater Projects
Project Type: Wastewater Facility - Maintenance / Modification
Project Description: The New Jersey Water Bank - NJWB (formerly New Jersey Environmental Infrastructure Financing Program) is a partnership between the New Jersey Department of Environmental Protection (NJDEP) and the New Jersey Environmental Infrastructure Trust (Trust) provide grants and low-cost financing for the design, construction, and implementation of water, sewer, and stormwater projects

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.32012025,-74.59941043935281,14z>



Counties: Atlantic County, New Jersey

Endangered Species Act Species

There is a total of 7 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: ▪ The specified area occurs within the range of the northern long-eared bat. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Birds

NAME	STATUS
Eastern Black Rail <i>Laterallus jamaicensis ssp. jamaicensis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10477	Threatened
Red Knot <i>Calidris canutus rufa</i> There is proposed critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: ▪ The monarch is a candidate species and not yet listed or proposed for listing. There are generally no section 7 requirements for candidate species (FAQ found here: https://www.fws.gov/savethemonarch/FAQ-Section7.html). Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
American Chaffseed <i>Schwalbea americana</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1286	Endangered
Sensitive Joint-vetch <i>Aeschynomene virginica</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/855	Threatened
Swamp Pink <i>Helonias bullata</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4333	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

MIGRATORY BIRD INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical](#)

[Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER EMERGENT WETLAND

- [Palustrine](#)

ESTUARINE AND MARINE DEEPWATER

- [Estuarine](#)

RIVERINE

- [Riverine](#)

Appendix C

Aerials



Graphic Scale — 1"=1000'



Job No.
1002.11

Sheet 1	
B/O 1	Total 1

Somers Point
Atlantic County

Stormwater Improvements

Stormwater Outfall Improvements
Aerial

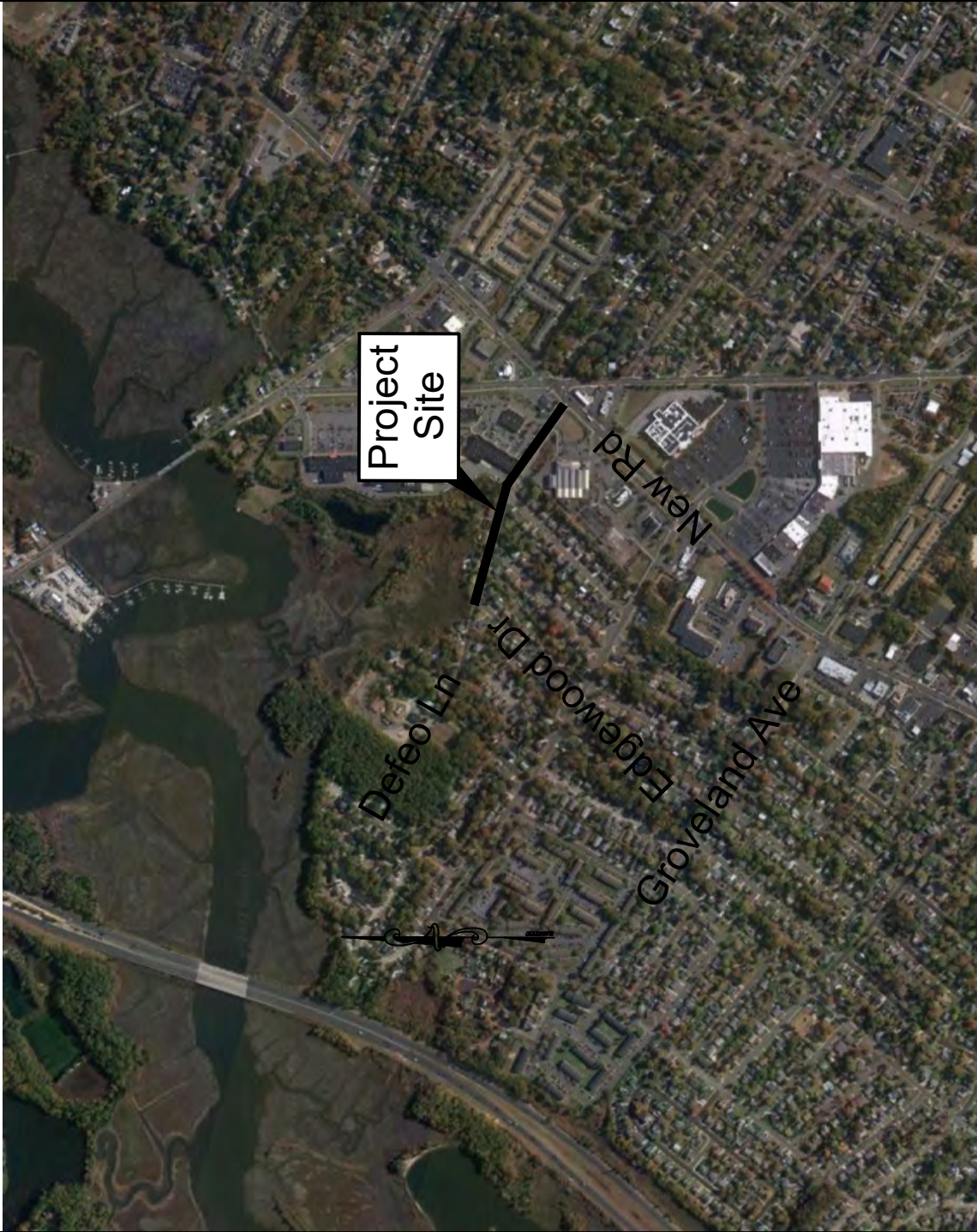


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Gregory K. Schneider
Professional Engineer
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Designed STAFF	Drawn STAFF	Checked GKS	Approved GKS	Date 5/20/22



Graphic Scale — 1"=1000'



Job No.
1002.11

Sheet 1	
B/O 1	Total 1

Somers Point
Atlantic County

Stormwater Improvements

Defeo Lane
Aerial



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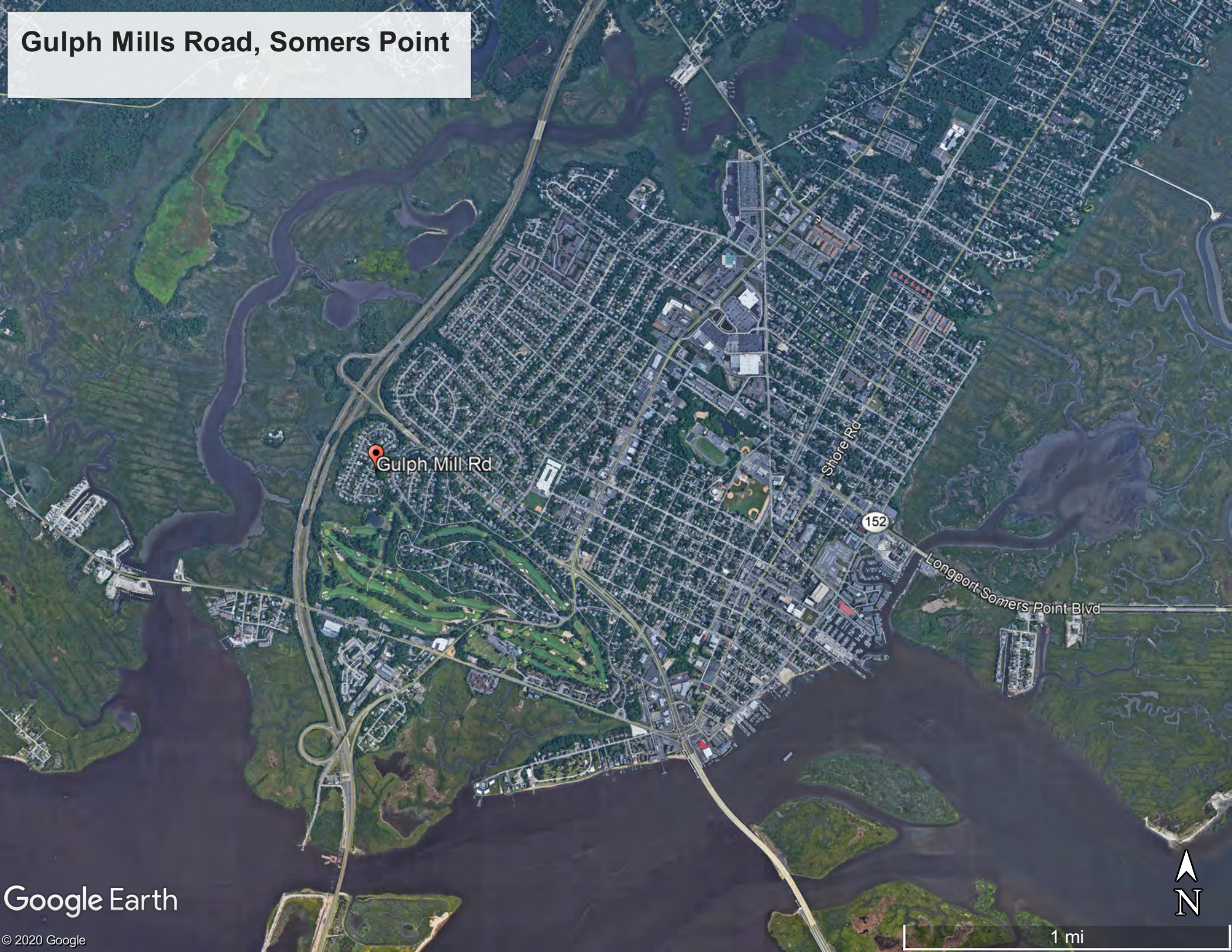
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Gulph Mills Road, Somers Point



Gulph Mill Rd

Shore Rd

152

Longport-Somers Point Blvd





Graphic Scale — 1"=1000'



Job No.
1002.11

Sheet	
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Somers Point
Atlantic County

Stormwater Improvemnts

Schoolhouse Lane Pump Station
Aerial



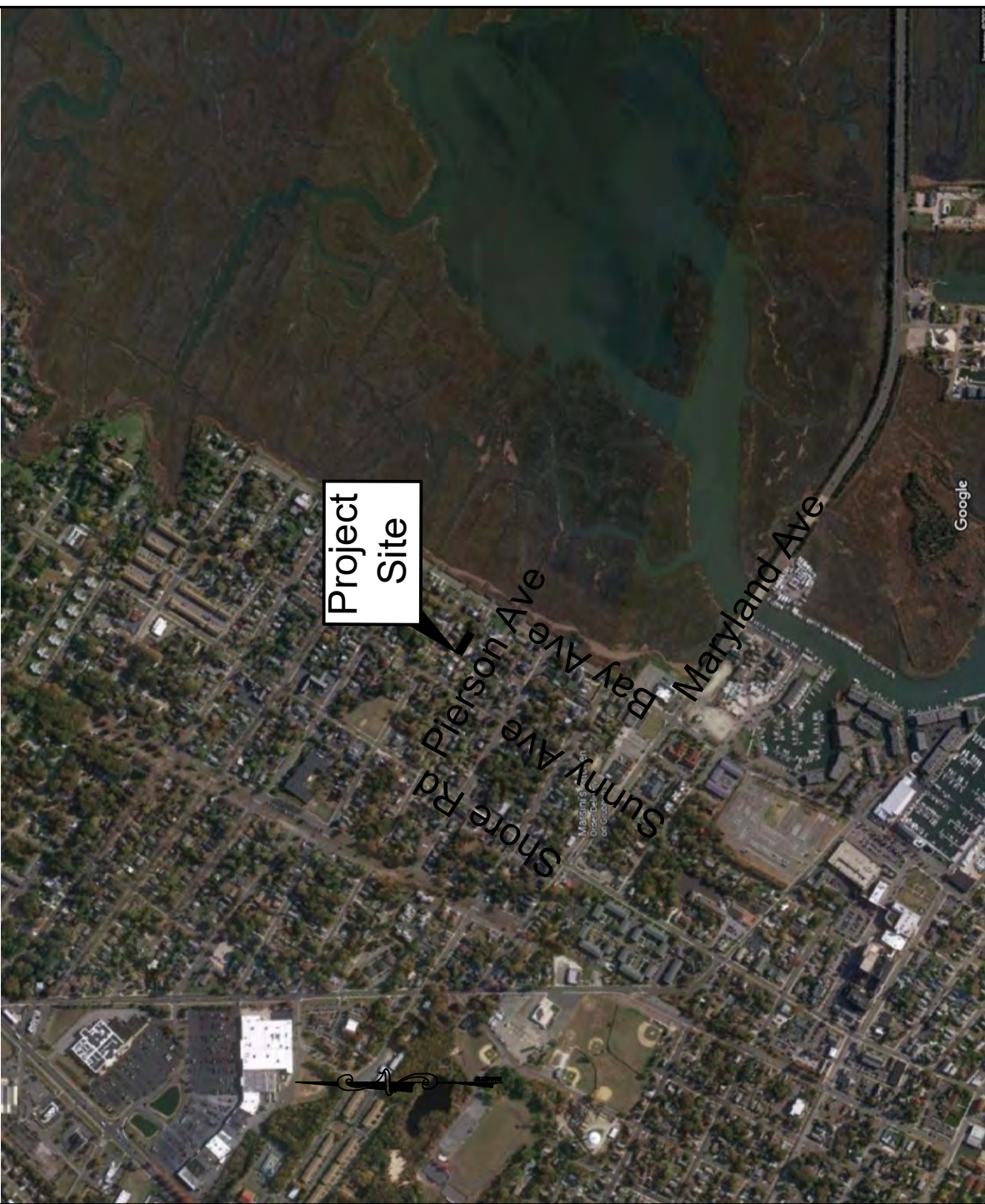
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STAFF	STAFF	GKS	GKS	5/20/22



Graphic Scale — 1"=1000'



Job No.
1002.11

Sheet 1	Total 1
B/O 1	

Somers Point
Atlantic County

Stromwater Improvemnts

Pierison/Dawes
Aerial



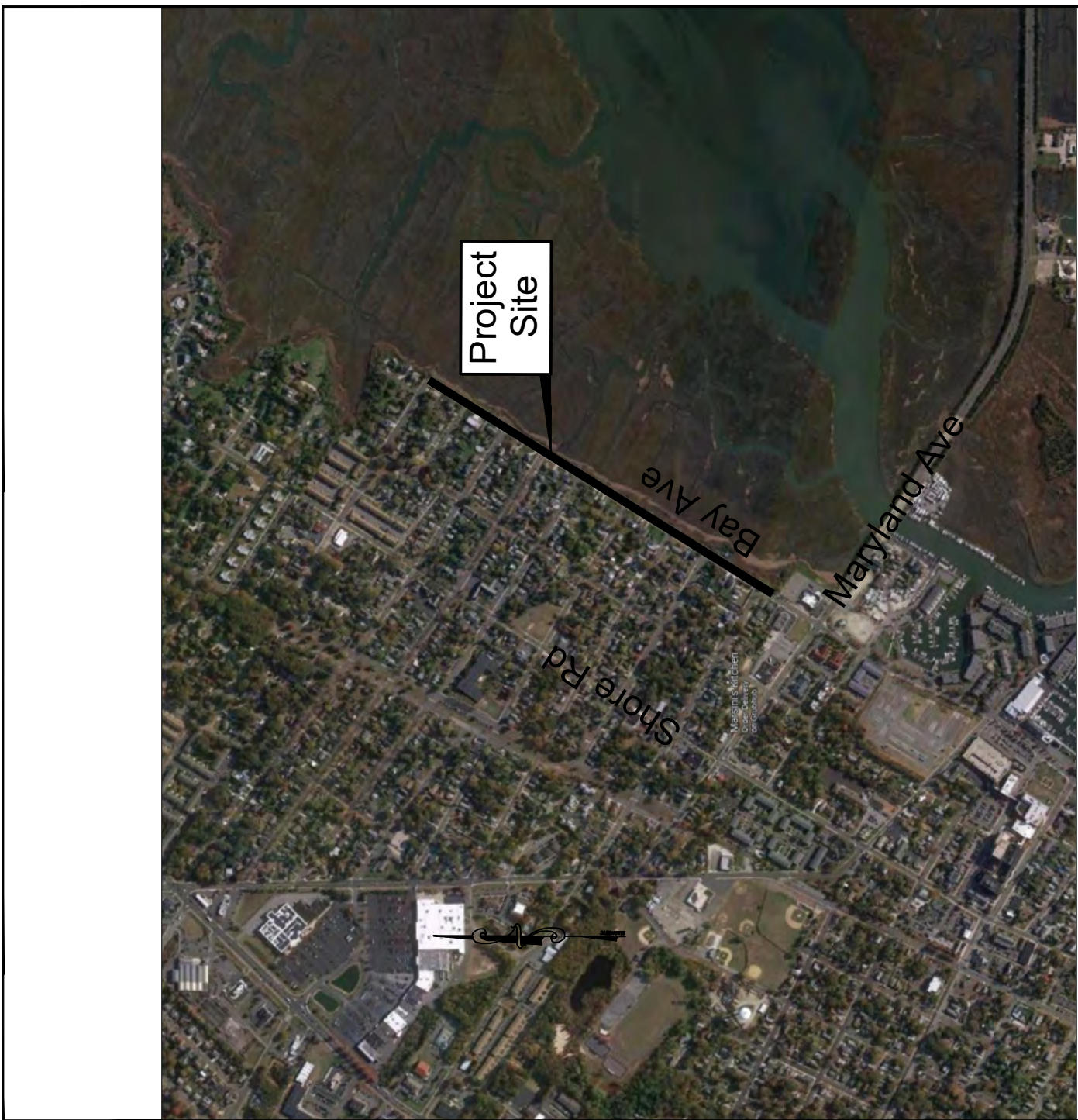
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Graphic Scale — 1"=1000'



Job No.
1002.11

B/O	Total
1	1

Somers Point
Atlantic County

Stormwater Improvements

Bay Ave
Aerial



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Designed STAFF	Drawn STAFF	Checked GKS	Approved GKS	Date 5/20/22
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Appendix D
Resiliency Report

CITY OF SOMERS POINT
ATLANTIC COUNTY, NEW JERSEY



SOMERS POINT
NEW JERSEY
the shore starts here!™

**NEW JERSEY ENVIRONMENTAL INFRASTRUCTURE FINANCING PROGRAM
APPLICATION FOR FINANCIAL ASSISTANCE**

CLIMATE CHANGE RESILIENCY REVIEW

Somers Point Stormwater Projects

Project Number: S340553-10

Applicant:
City of Somers Point
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Somers Point, New Jersey
Jason Frost, Administrator
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Date: November 2024

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INTRODUCTION

This resiliency review is being submitted as part of the Planning Document/ Project Report for review by the New Jersey Department of Environmental Protection (Department) and used within the Alternatives Analysis to justify the selected alternative.

This report incorporates new requirements expanding resilience to account for current and future climate change impacts, including increased extreme precipitation, sea level rise, and worsening storms. This report includes a provision of maps, justifications for planning horizons and climate impact projections, and a resilience assessment for the selected project alternative, where applicable. The purpose of these requirements is to incorporate resilience as a crucial component of the alternatives analysis and justification for the selected alternative.

PROJECT TYPE

All proposed projects are stormwater improvements, located in the City of Somers Point, Atlantic County. A map of the community served is shown in Appendix A. Proposed locations of projects as listed in the project scope are shown in Appendix B. The mean water line for relevant bodies of water is shown in Appendix C.

PROJECT SCOPE

The City of Somers Point is applying for funding for several stormwater projects, namely:

1. **Exton Road Pump Station** – This new pump station will be located at the intersection of Exton Road and Yale Boulevard. The scope of work consists of the construction of a pump station and associated infrastructure in order to prevent tidal water from surcharging the upstream stormwater system and to alleviate the damage caused by resulting flooding. The project includes construction of a pump station, wet well, and generator. All buildings, structures, generators, utilities and equipment located in the SFHA must be protected to the 500-year floodplain per ASCE 24 Standard plus incorporating sea level rise, consistent with the critical facilities standard. The building dimensions are 32' x 29'. The proposed pump station will be located out of the wetlands and buffered as confirmed by NJDEP.
2. **Pacific Avenue Pump Station Replacement** - The existing stormwater pump station located at the end of Pacific Avenue was constructed in 1993 and consists of a diesel generator that is reaching the end of its useful life and experiences frequent outages. In addition, the current diesel generator is supplied by an above ground storage tank that limits the run time of the pump before it needs to be refueled. It is proposed to replace the current diesel generator with electrical service and a backup diesel gas generator since this would increase the resiliency of the pump station during storm events and provide a continuous source of power for the pump station. Existing wet

well and structure will remain. Existing pumps to be replaced in kind.

3. Ocean Avenue Stormwater Improvements - Ocean Avenue between Atlantic Avenue and Campbell Avenue and then continuing along Campbell Avenue to a dead end has an existing 65" X 43" elliptical corrugated metal stormwater pipe that runs under the existing asphalt that has reached the end of its useful life and is experiencing failure. This project also includes the replacement of the existing 15" corrugated metal pipe along Bliss Avenue from Shuman's Alley to Lashley Avenue that ties into the stormwater system on Ocean Avenue that is also experiencing failure. Due to extensive excavation required to replace the pipe, the entire width of street will need to be repaved and brought up to ADA standards. The existing system is estimated to be approximately 60 years old based on aerial photography. It consists of 915 feet of 54" metal pipe and 775 feet of 15" metal pipe. Existing corrugated metal pipe to be replaced with HDPE or concrete pipes of the same size.
4. Jordon Road to Exton Road Stormwater Improvements – The existing corrugated metal stormwater pipe that runs from Jordan road to Exton Road is approximately 50 years old and has reached the end of its useful life and is experiencing failure. The majority of the existing corrugated metal pipe runs perpendicular to the existing roadways in the area through existing stormwater easements on private property. It is proposed that the stormwater pipe be slip lined with cured in place pipe to limit the disturbance of private property. Length and size of the pipe shown in the engineer's estimate.
5. Nassau Road to Ambler Road Stormwater Improvements – The existing corrugated metal stormwater pipe that runs from Nassau Road to Ambler Road is approximately 60 years old and has reached the end of its useful life and is experiencing failure. The majority of the existing corrugated metal pipe runs perpendicular to the existing roadways in the area through existing stormwater easements on private property. It is proposed that the stormwater pipe be slip lined with cured in place pipe to limit the disturbance of private property. Length and size of the pipe shown in the engineer's estimate.
6. Colwick Drive to Wisteria Walk Stormwater Improvements – The existing corrugated metal stormwater pipe that runs from Colwick Drive to Wisteria Lane is approximately 65 years old and has reached the end of its useful life and is experiencing failure. The majority of the existing corrugated metal pipe runs perpendicular to the existing roadways in the area through existing stormwater easements on private property. It is proposed that the stormwater pipe be slip lined with cured in place pipe to limit the disturbance of private property. Length and size of the pipe shown in the engineer's estimate.
7. Schoolhouse Drive Pump Station – Located on Schoolhouse Lane between Defeo Lane and Chapman Boulevard is a low spot in the roadway with an existing inlet and stormwater pipe that conveys stormwater to Patcong Creek. The City has installed a

- check valve on this outfall to prevent tidal flooding but during times of high tide and high precipitation events, positive discharge is not possible which has caused flooding. This flooding has caused damage to adjacent homes. Proposed improvements include a small electric pump station to pump precipitation to the Patcong Creek during high tides. All improvements will be completed in the existing developed Right-of-Way. The proposed pump station will be located in an already developed area just off the existing curb and discharges to an existing inlet. The pump station is only proposed to operate when an existing check valve is closed and a fairly small pump of 10 HP. No land use permits required, the site is a flood hazard area.
8. Gulph Mill Road Stormwater Improvements - An existing 36" outfall adjacent to Gulph Mill Road drains approximately 130 acres. The current outfall is below Mean High Water (MHW) and therefore tidal water surcharges the system at high tide, reducing the system's storage capacity. In addition, if precipitation is occurring during high tide, positive discharge of the stormwater is not possible. No pump station currently exists. The city proposes to install a stormwater pump station along Gulf Mill Road to pump stormwater during high tide events with precipitation. Tide check valves will also be installed to prevent tidal water from surcharging the system. In addition, there are two existing smaller outfalls that are proposed to be removed and tied into the stormwater pump station. All improvements, including the proposed pump station, will be completed in the existing developed Right-of-Way. Due to the extensive excavation of the project, repaving of the street and associated ADA improvements will be required. A wetlands GP No. 11 may be required.
 9. Pierson/Dawes Stormwater Improvements – Located between Pierson Avenue and Dawes Avenue in the rear of the existing lots is a natural low area that floods during significant precipitation events. This flooding has caused damage to basements, garages, and sheds of the adjacent homes and creates issues with standing water and mosquitos breeding. Proposed improvements include a small electric pump station and additional stormwater piping to convey stormwater to Bay Avenue. The proposed pump station will be located in an already developed in the rear of two existing lots where a natural low area occurs and discharge to an existing inlet. The pump station is only proposed to operate when an existing check valve is closed and a fairly small pump of 10 HP. Limited area of disturbance to existing developed land (grass). No permits are anticipated.
 10. Exton Road Shoreline Stabilization - There is an existing brackish creek that receives stormwater runoff adjacent to Exton Road that eventually runs to Patcong Creek. This creek is experiencing extreme erosion on its banks and the adjoining property owners are concerned about the erosion continuing onto their properties. It is proposed to stabilize the banks of the creek with gabion rock baskets and a living shoreline of native plants.
 11. Stormwater outfall improvements - There are four (4) existing outfalls which drain

stormwater to the Patcong Creek which are almost completed silted in and the stormwater pipe is damaged which is causing stormwater flooding during precipitation events. The scope of work includes replacement of the stormwater pipe, extension of the existing outfalls, removal of existing silt in the drainage ditch, and tide check valves. It is anticipated that a Freshwater Wetlands General Permits Number 11 will be required.

12. Defeo Lane Stormwater Replacement - Defeo Lane between Us Rt.9 and Edgewood Drive has an existing 64" corrugated metal stormwater pipe that runs under the existing asphalt to an existing outfall off Edgewood Drive that has reached the end of its useful life and is experiencing failure. The area also frequently experiences flooding from large precipitation events since the adjacent Shoprite drainage system ties into the City's stormwater system. The existing metal pipe is proposed to be replaced and a separate 36" stormwater pipe and outfall is proposed to be installed for the stormwater from the existing shopping center. Check valves are also proposed to limit infiltration and flooding from the adjacent Patcong creek. Due to extensive excavation required to replace the pipe, the entire width of street will need to be repaved and brought up to ADA standards.
13. Bay Avenue Outfalls and Living Shore line - Bay Avenue between Groveland Avenue and Ocean Avenue consists of a eight (8) individual outfalls consisting of deteriorated corrugated metal pipe (CMP) and drains over 125 acres into the bay. The land between Bay Avenue and the salt marsh mostly consists of invasive Phragmites. This project proposes to reduce runoff and improve stormwater quality by creating a living shoreline along Bay Avenue. This will be done by eliminating all outfalls so that stormwater runs along Bay Avenue in a bioretention swale consisting of native plant species to the natural low point along Bay Avenue. A stormwater pump station is proposed to pump stormwater during large storm events. In addition, a living shoreline adjacent to the bay is proposed to eliminate the existing Phragmites and plant native species.

RESILIENCY ANALYSIS

FLOOD HAZARDS

The flood hazard risk for the entire City of Somers Point was determined by a coastal analysis from the FEMA flood insurance study (FIS). The preliminary FEMA FIS, using transect 41, which is the closest to all proposed projects, calculates a 0.2% flood elevation of 10.6 NAVD 88.

TABLE 7 – TRANSECT DATA – continued

Flood Source	Transect		Starting Wave Conditions for the 1% Annual Chance		Starting Stillwater Elevations ¹ (ft NAVD88) Range of Stillwater Elevations ² (ft NAVD88)			
	Number	Coordinates	Significant Wave Height	Peak Wave Period	10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Atlantic Ocean	40	N 39.307277 W 74.565152	3.90	12.06	6.4 6.2 - 6.4	8.3 8.0 - 8.3	9.1 8.7 - 9.1	11.7 10.7 - 11.7
Great Egg Harbor Bay	41	N 39.311537 W 74.591341	2.76	2.64	6.4 6 - 7.3	7.9 7.8 - 7.9	8.6 8.4 - 8.6	10.6 10.4 - 10.7
Great Egg Harbor Bay	42	N 39.307142 W 74.602702	2.88	2.51	6.1 6 - 6.2	7.8 7.6 - 7.8	8.5 8.3 - 8.5	10.2 9.9 - 10.2
Great Egg Harbor Bay	43	N 39.313892 W 74.626759	2.13	2.40	6 5.8 - 6.4	7.6 7.1 - 7.6	8.2 7.8 - 8.2	9.6 9.3 - 9.6
Great Egg Harbor Bay	44	N 39.307517 W 74.632662	2.39	2.56	6.1 5.6 - 7.3	7.7 6.9 - 7.7	8.3 7.6 - 8.3	9.6 8.7 - 9.6
Great Egg Harbor Bay	45	N 39.311592 W 74.659586	2.21	2.66	6.1 4.7 - 6.8	7.6 7.1 - 7.6	8.2 7.7 - 8.2	9.5 8.9 - 10.3
Great Egg Harbor Bay	46	N 39.300308 W 74.648186	2.72	2.69	6.1 5.7 - 6.1	7.7 7.4 - 7.8	8.3 7.9 - 8.4	9.6 9.0 - 9.6

¹Stillwater elevations include the contribution from wave setup.

²For transects with a constant stillwater elevation, only one number is provided to represent both the starting value and the range.

The Preliminary FEMA flood zones are shown in Appendix D. All of the proposed projects, except project site 3, is located in a 0.2% flood zone or greater.

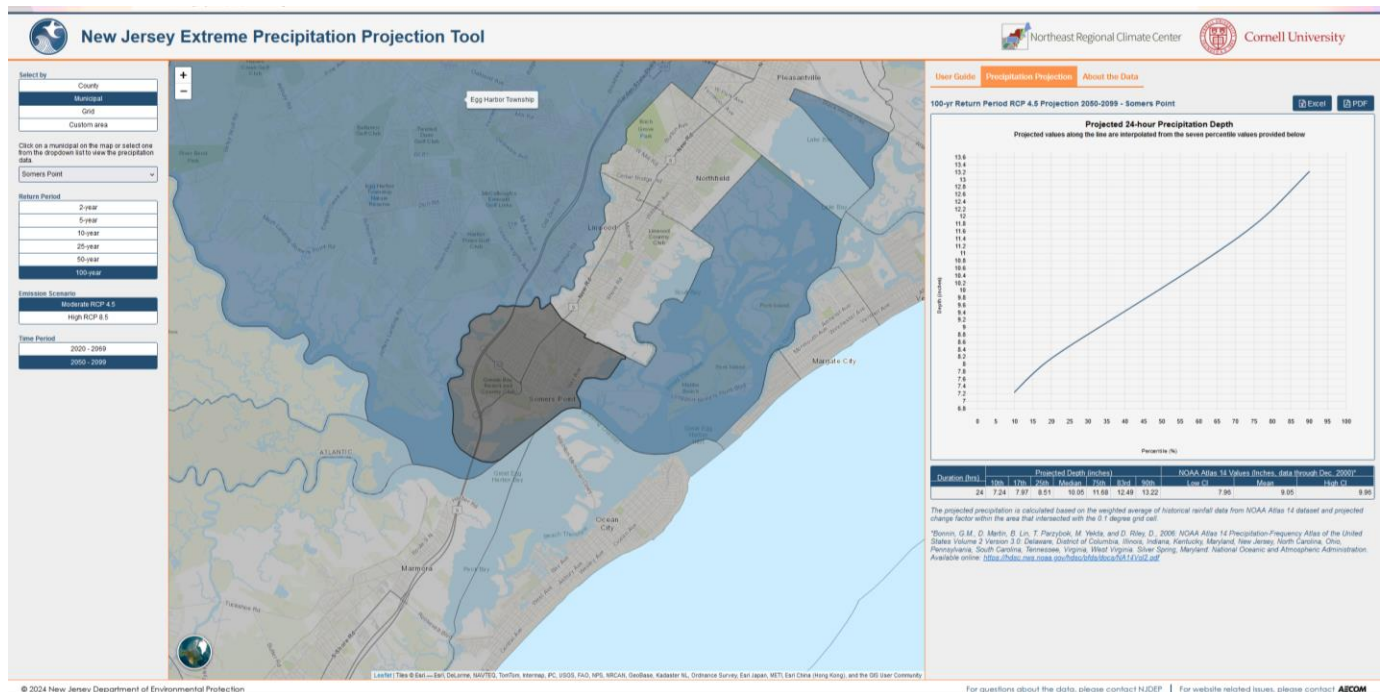
Flood risks will be mitigated by having new electrical components for proposed stormwater pump stations at project sites 1, 2, 7, 9 and 11 will be elevated above the 0.2% flood elevation plus expected Sea Level Rise at the year 2100. All other projects entail stormwater components that are designed to be submerged. In addition, all stormwater outfalls will have tidal check valves to prevent flooding of the stormwater system.

SEA LEVEL RISE

All new electrical components for proposed stormwater pump stations at project sites 1, 2, 7, 9 and 11 will be elevated above the 0.2% flood elevation plus expected Sea Level Rise at the year 2100. Sea Level Rise Project was based off the year 2100 and less than 17% chance Sea Level Rise exceeds, which was determined to be 5.1 feet. Therefore, incorporating the 0.2% flood elevation and sea level rise, a design flood elevation of 8.6 + 5.1 = 13.7 NAVD 88. All new electrical components for proposed stormwater pump stations at project sites 1, 2, 7, 9 and 11 will be built to this design elevation.

PRECIPITATION

Recent studies have shown an increase in Extreme Rainfall Average Rainfall Interval within New Jersey relative to older NOAA Atlas 14 precipitation data that is employed for current design standards and regulations.



The proposed projects, which will only include rehabilitation, repair or replacement will not alter or expand the existing stormwater infrastructure, except for project sites 12 and 13, which will expand the existing stormwater infrastructure. A stormwater permit will be also required for projects 12 and 13 which will fall under new NJDEP stormwater regulations which already require enhanced precipitation adjustment factors.

STORM SURGE

A Storm Surge Map is shown in Appendix E. Storm Surge will be mitigated by having new electrical components for proposed stormwater pump stations at project sites 1, 2, 7, 9 and 11 will be elevated above the 0.2% flood elevation plus expected Sea Level Rise at the year 2100. All other projects entail stormwater components that are designed to be submerged. In addition, all stormwater outfalls will have tidal check valves to prevent flooding of the stormwater system.

All proposed stormwater pumping stations will have backup generators to account for disruptions in the electrical grid. Project 13 proposes a living shoreline along Bay Avenue to create a bioretention swale to protect from surge events.

There is no current mitigating infrastructure to protect assets from weather events.

VULNERABILITY ASSESSMENT

The physical vulnerability of the proposed stormwater infrastructure was analyzed. The components of the proposed infrastructure that are vulnerable to climate change are new electrical components for proposed stormwater pump stations at project sites 1, 2, 7, 9 and 11. Climate change vulnerabilities include tidal flooding, sea level rise, irregular precipitation patterns, and storm surge.

RISK TOLERANCE

The Level of Service focuses on the management and collection of stormwater to reduce flooding and is engineered to mitigate flood risks and manage stormwater at its source

The stormwater system is not classified as critical infrastructure as it does not directly impact public health and safety. Extreme precipitation and tidal flooding could challenge the capacity of the proposed infrastructure, disrupting the effectiveness of stormwater management and leading to increased runoff.

Consequences of LOS disruption include reduced effectiveness in stormwater management during extreme weather conditions, but the system is designed to minimize such events, and disruptions are expected to be manageable within existing urban infrastructure capacities. Financial risks are limited to the cost of replacing stormwater structures, which is often part of routine maintenance.

The disruption in LOS does not endanger public health or safety directly, as these risks are mitigated by the design of the project to perform under varying climatic conditions, aimed at reducing such occurrences.

IMPACT ASSESSMENT

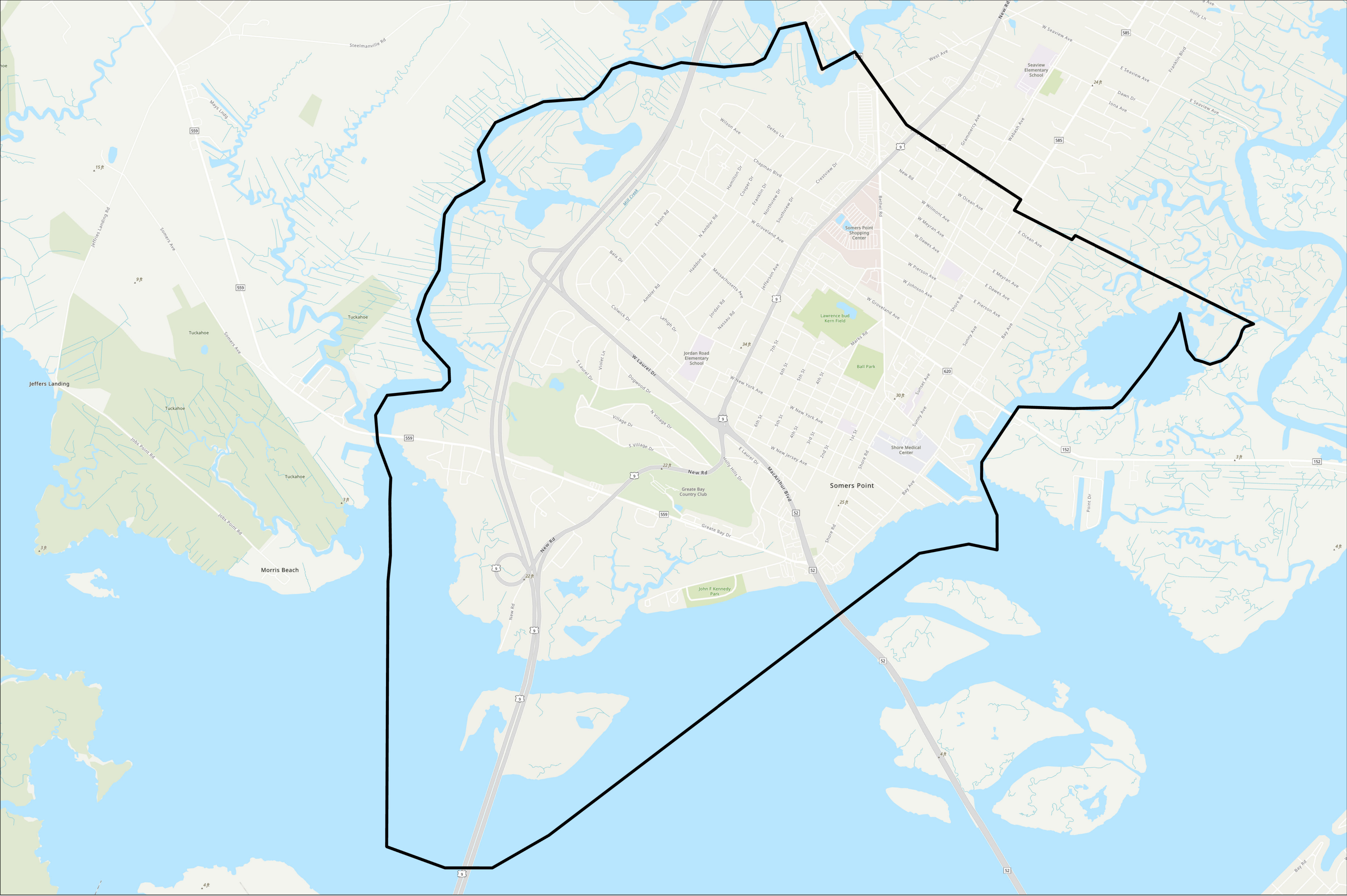
Given that the potential disruptions in LOS do not lead to significant environmental, financial, or health and safety risks, conducting an extensive risk tolerance assessment for these stormwater project is not necessary. The project's vulnerability to climate change, while present, results in inconsequential disruptions in LOS, allowing for standard maintenance and periodic adjustments rather than intensive risk mitigation strategies.

SELECTED ALTERNATIVE JUSTIFICATION

The City of Somers Point is surrounded on three sides and is subject to nuisance and tidal flooding. Constant upgrading of the stormwater system is required due to its age and to address stormwater issues. Life expectancy of stormwater improvements is 30 years. The only

alternative is to take no action. If this alternative is chosen, the quality of life in the community will be negatively impacted. While the project is vulnerable to climate change, the risks can be mitigated and the need for stormwater repairs and improvements balances all factors.

APPENDIX A





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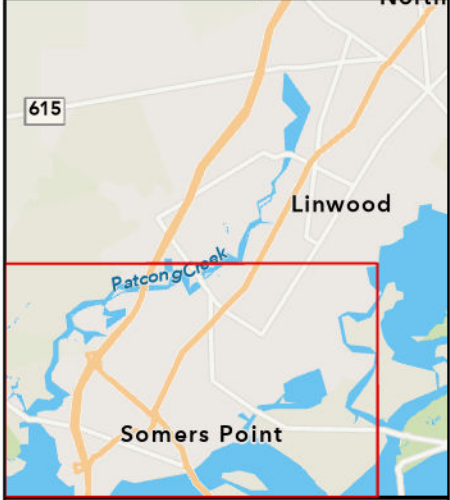
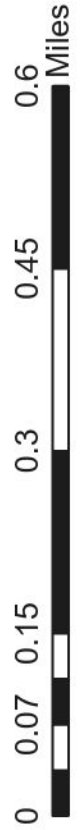
Community Served

Somers Point, New Jersey

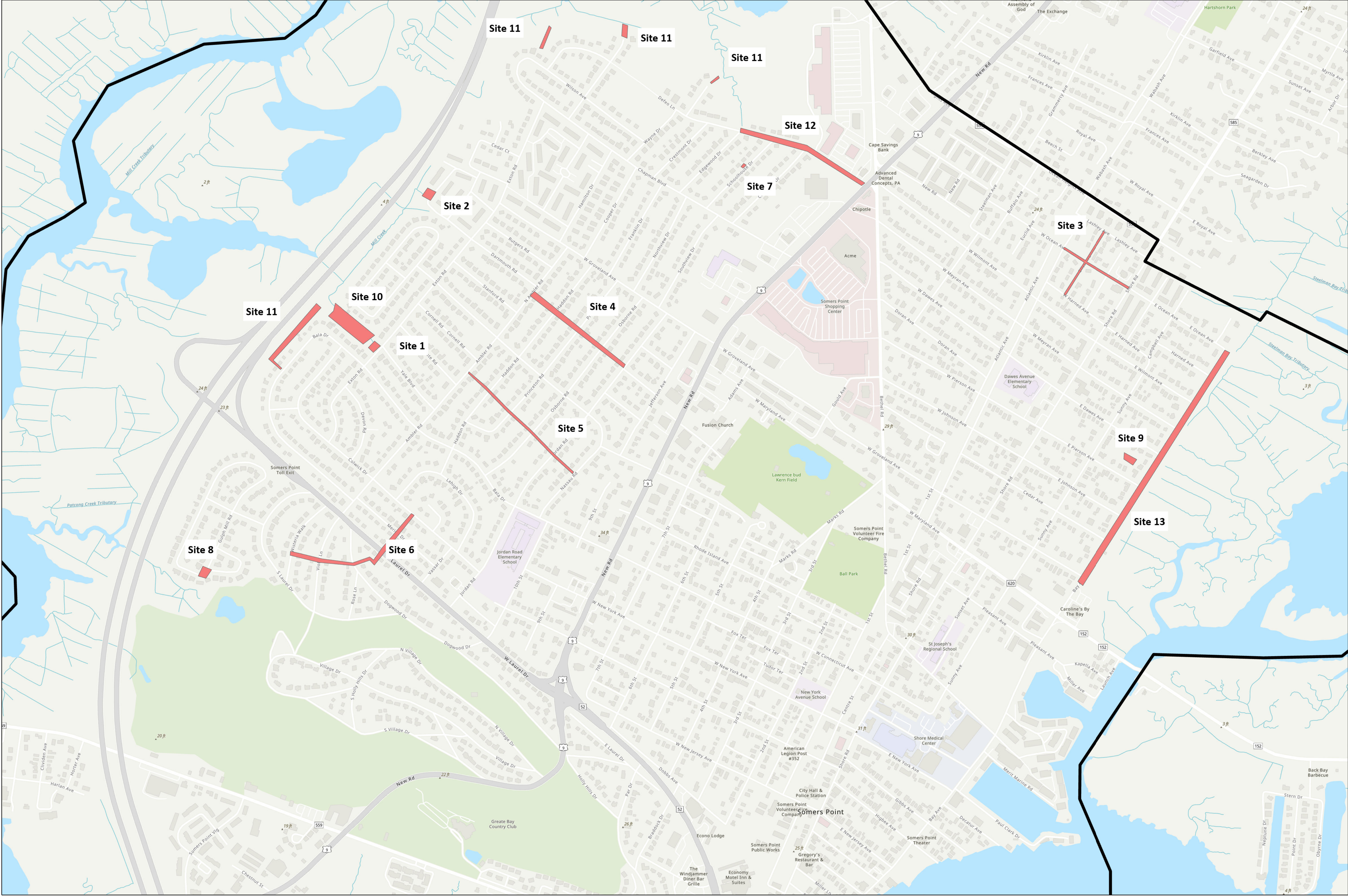
2024

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Coordinate System: NAD 1983 StatePlane New York East FIPS 3101 Feet



APPENDIX B





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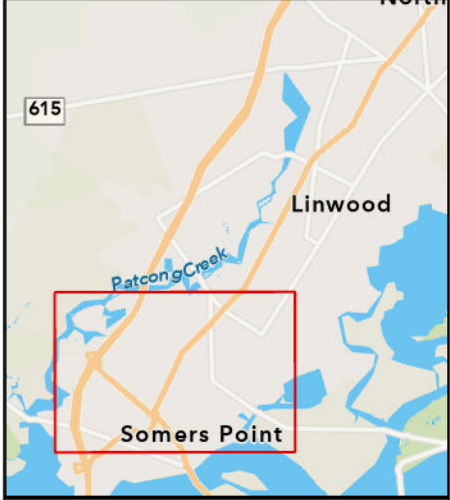
Project Sites

Somers Point, New Jersey

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

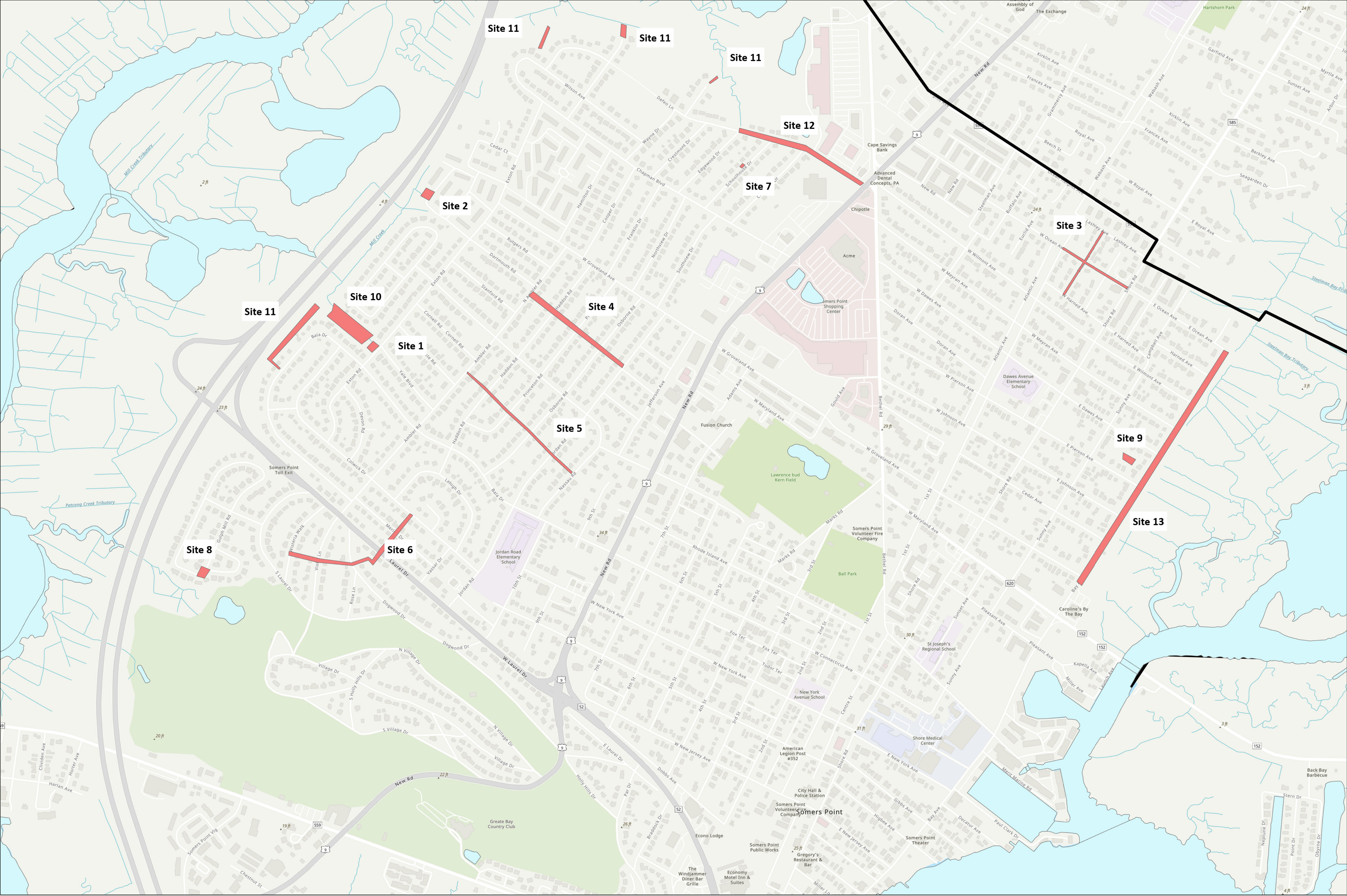
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Coordinate System: NAD 1983 StatePlane New York East FIPS 3101 Feet



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APPENDIX C







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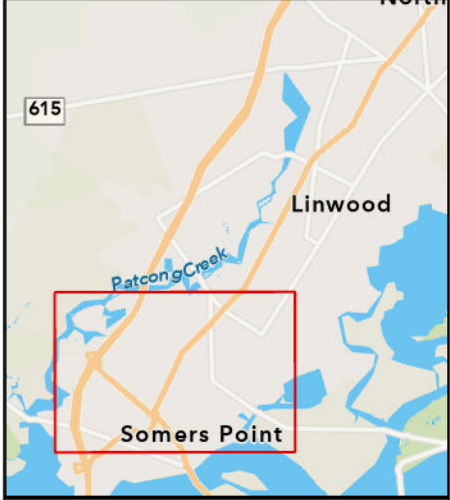
Mean Water Line

Somers Point, New Jersey

Source: Esri, TerraMetrics, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

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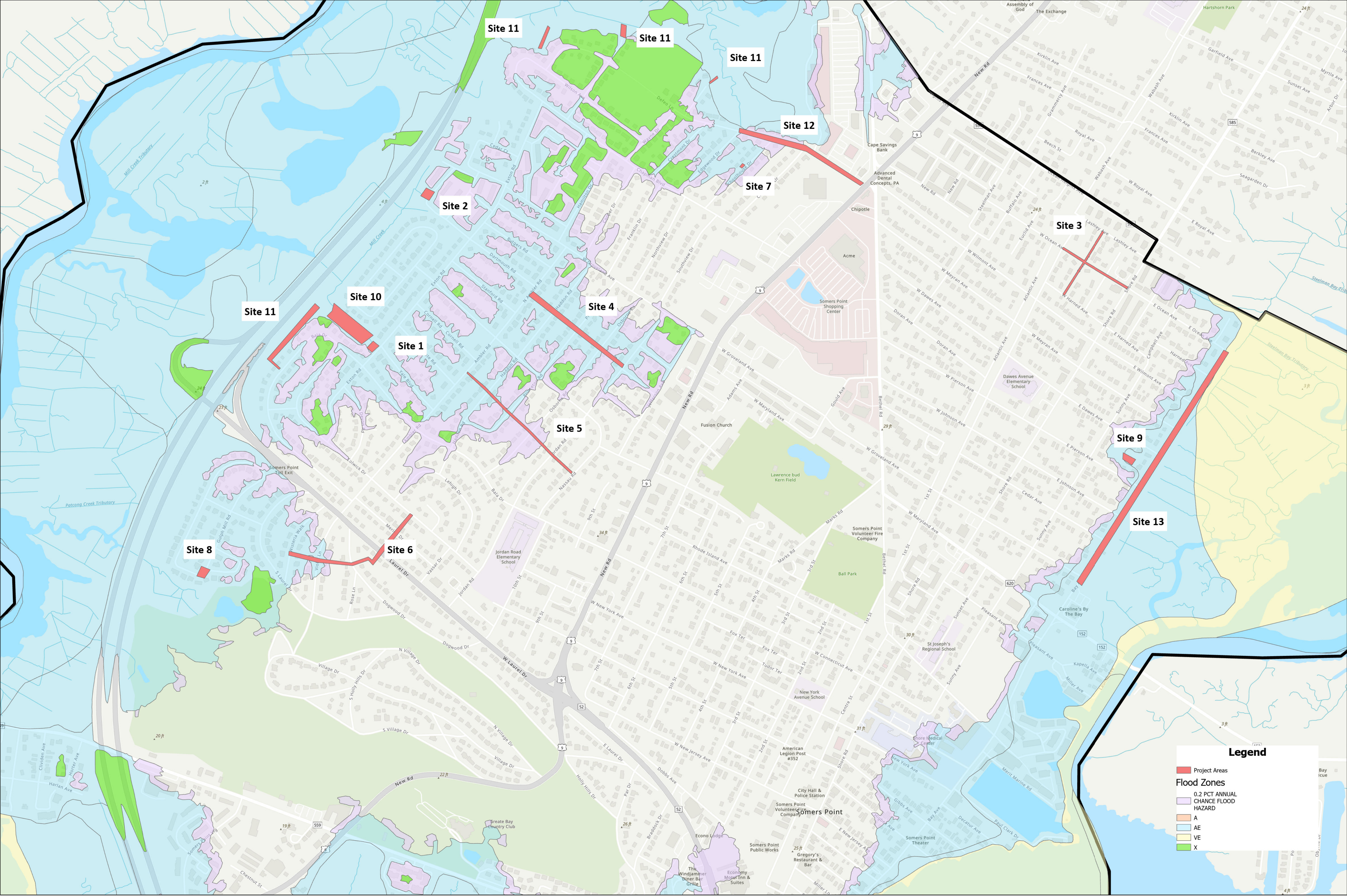
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Miles

APPENDIX D





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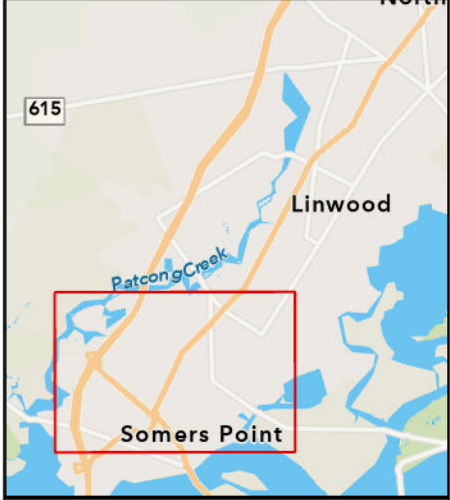
0.2% Annual Chance Flood

Somers Point, New Jersey

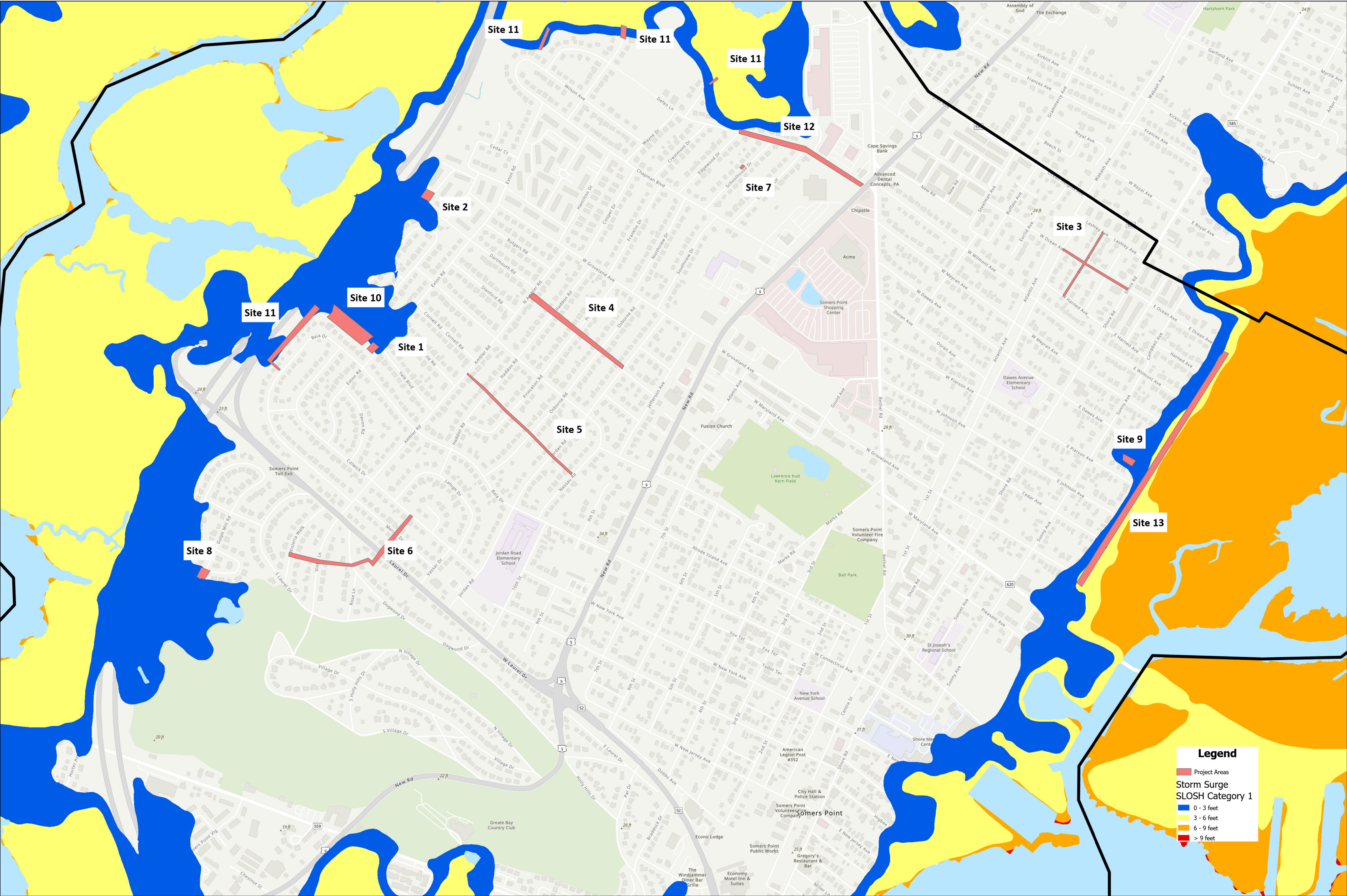
Sources: Esri, TerraTerra, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

2024

Coordinate System: NAD 1983 StatePlane New York East FIPS 3101 Feet



APPENDIX E



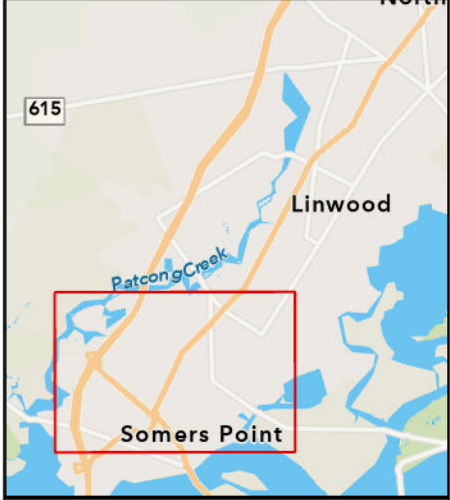


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Category 1 Hurricane Storm surge
Somers Point, New Jersey

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

2024
Coordinate System: NAD 1983 StatePlane New York East FIPS 3101 Feet





Miles