# Hashamomuck Cove Southold, New York Coastal Storm Risk Management Integrated Feasibility Study/EA

Appendix A5
Shorebird Management Plan

**Hashamomuck Cove** 

Coastal Storm Risk Management Project

Southold, New York

**Shorebird Management Plan** 

# Hashamomuck Cove, Southold, New York Shorebird Management Plan

<u>Introduction:</u> The Army Corps of Engineers (USACE) New York District (District) is in the process of planning and implementing a Coastal Storm Reduction Management (CSRM) project for the Hashamomuck Cove project located in Southold, New York. The project area extends from Soundview Road near the Southold Town Beach east about 1.5 miles (Figure 1). The project area includes three coves separated by headlands; West Cove (also known as Southold Town Beach), Center Cove, and East Cove (Figure 2).

Storm risk assessments and damage estimates for the Hashamomuck CSRM project were based upon a 50-year life of the project. While this Shorebird Management Plan (herein called the Plan) was prepared as a component of the CSRM project, the Plan may need to be re-evaluated and revised during the 50-year project life to adjust to unanticipated events (i.e., change in piping plover or least tern population or status, unanticipated change in the beach configuration/project area, unanticipated change in economic conditions, etc.). A re-evaluation of this Plan may be initiated by the Town of Southold, the U.S. Fish and Wildlife Service (USFWS), the New York State Department of Environmental Conservation (NYSDEC) or the USACE New York District.

The features of the Hashamomuck Cove CSRM project are as follows:

Berm Length: 8,500 linear feet (ft.)

Berm Height: 6 ft. NAVD88

Foreshore Slope: Sand graded seaward on a slope of 1 Vertical to 10 Horizontal.

Berm Width: Uniform width of 25 ft. in the West, Central and East Coves

Sand Source: Trucked from upland source

Initial Placement Volume: 216,000 cubic yards (rounded up)

West Cove: 94,400 cubic yards Central Cove: 83,000 cubic yards East Cove: 38,200 cubic yards

Average Re-nourishment Volume: 577,000 cubic yards (total over the 50 year period of

analysis)

West Cove: 276,000 cubic yards Central Cove: 116,000 cubic yards East Cove: 185,000 cubic yards

Total Planned Nourishment: 793,000 cubic yards

West Cove: 370,000 cubic yards Central Cove: 199,000 cubic yards East Cove: 223,200 cubic yards Re-nourishment Interval: The re-nourishment interval depends on a variety of factors including sea level rise, storm frequency, and type of storms. The re-nourishment are estimated to occur on a 5 year interval (9 events). Sand volume for each re-nourishment event is estimate to total 64,000 cubic yards (30,700 cubic yards in the West cove, 12,900 cubic yards in the Central Cove and 20,600 cubic yards in the East Cove) per re-nourishment event with sand trucked in from a certified upland sand source. The actual implementation of a re-nourishment event will be dependent on future storm events and general rates of erosion which may be affected by sea level rise. From a beach management perspective, only areas that demonstrate significant erosion would be re-nourished. The beach berm will be evaluated periodically, and when a sufficient amount of berm loss is observed, a re-nourishment event would be scheduled.

<u>Construction Method</u>: Sand would be trucked to the site and be delivered to staging points with direct access to the beach. Trucks would deposit sand at appropriate locations to facilitate subsequent spreading and regrading by bulldozers or front end loaders. Initial construction is estimated to take approximately 1 year. Construction would occur from early March until the following February. It was assumed that the construction would occur in 2019-2020 for the economics evaluation, but the construction start year is subject to future project approval and funding requirements.

Sand on the foreshore slope will be graded seaward on a slope of 1 Vertical to 10 Horizontal. This initial design profile is more uniform than existing conditions and will be subject to long-shore and cross-shore sediment transport from both typical and storm induced wave conditions which will reshape the beach to its natural configuration. Over time, portions of the beach may experience permanent land loss.

Piping plover (*Charadrius melodus*) (listed as federally threatened and state endangered) and the least tern (*Sternula antillarum*) (listed as a state threatened) monitoring is conducted at Southold Town Beach (West Cove) annually by the Town of Southold. The last recorded nesting of piping plover at Southold Town Beach occurred in 2004. No least tern colonies have been recorded at Southold Town Beach. The habitat at Southold Town Beach was defined as generally unsuitable due to significant human disturbance and insufficient area above high tide mark for nesting.

The protection of threatened and endangered species is an environmental obligation of every USACE Army Corps of Engineers project and an important component of the Hashamomuck Cove CSRM project. While the project area is currently not suitable for nesting piping plovers or least tern, beach widening may attract these species to utilize the project area in the future. As such, piping plover and the least tern will be monitored as an essential part of the post-construction conservation measures built into the project. Other species of interest, red knot (*Calidris canutus*) and horseshoe crab (*Limulus polyphemus*), observed within project site during plover and tern monitoring, will also be documented.

<u>General Requirements</u>: The general provisions of this management plan require that annual piping plover and least tern monitoring be conducted in the Hashamomuck Cove project area.

A detailed description of monitoring requirements are provided in the <u>Annual Piping Plover</u> <u>and Least Tern Monitoring</u> section of this plan. Additional provisions for the <u>initial placement</u> <u>of sand</u> and subsequent <u>re-nourishment activities</u> are outlined below:

•For the <u>initial placement of sand on the beach (proposed to begin early-March)</u>, the USACE New York District will arrange for a USFWS-approved biological monitor(s) to be on site from March 15 through August 31 or until the last plover chick has fledged and left the project area and adjacent areas that are within 1000 meters (m) of active or upcoming construction activities. Plover chicks are considered fledged at 35 days of age or when observed in sustained flight for at least 15 m, whichever occurs first. The biological monitor(s) will monitor the project area and areas within 1000 m of the project area in as much as possible (e.g., biological monitors will need permission to access private property) on a daily basis during construction activities Should the project not begin until the end of March, biological monitor(s) will begin monitoring 14 days prior to the proposed start of construction.

Monitors will record the presence of potentially breeding plovers and/or least terns. Plovers and terns will be considered "breeding" if any of the following behaviors are observed: territorial displays, courtship displays, scraping, copulating, and/or the presence of eggs or chicks. Any area in which these behaviors are observed will be considered nesting areas. If monitoring shows that plovers and/or least terns are not using the area for breeding, and additionally, there are no breeding piping plovers in adjacent areas within 1,000 m of active or proposed construction related activities (in as much as possible as can be determined on adjacent private properties) shore bird monitoring will conclude on July 15 via further coordination with the USACE New York District, NYSDEC and USFWS. In addition, the biological monitor will also check for the presence of horseshoe crab and red knot in the project area during initial construction. Horseshoe crabs observed in the work area will be relocated to avoid burial. The presence of horseshoe crab and red knot will also be noted in annual monitoring reports.

Upon the observation and documentation of any piping plover breeding/nesting activities, (as defined earlier) within the project area, or in adjacent areas within 1000 m of the project area, a 1000 m "no construction" buffer zone will be established around nesting areas (in as much as possible regarding access to private property. All relevant Town and ACOE personnel will be immediately notified of the presence and location of breeding plovers, and of) buffer locations. Symbolic fencing will also be erected around any nesting areas within the project area (50 m buffer). If the nesting area is in a location within the project area that is open to recreation, all USFWS Section 9 guidelines for managing recreational activities will be followed. If breeding plovers are located on property adjacent to the project area, the landowner, USFWS, and NYSDEC will be notified, and the landowner will be responsible for Endangered Species Act compliance.

If plover chicks are present within the project area, or in adjacent areas within 1000 m of project area, the 1000 m "no construction" buffer will apply to the chicks, and will be modified as the chicks move (i.e. the 1000 m buffer will shift along with chick movement to ensure that there is no construction within 1000 m of any of the chicks). All relevant Town and ACOE

personnel will be promptly alerted to the presence and location of chicks, buffer locations, and changes to buffer locations as chicks move. A buffer of 1000 m will be used until the chicks are fledged. After the chicks have fledged, the buffer can be reduced to 200 m. Buffers will be used until all fledged chicks have left both the project area and adjacent areas within 1000m of construction related activities.

If red knots are located within the project area, or in adjacent areas within 300 m of active or upcoming construction activities, a 300 m "no construction" buffer zone should be established around the location of the knots. The buffer zone will be adjusted as the birds move.

- Following completion of sand placement at the Hashamomuck Cove project site, the Town of Southold will conduct annual monitoring to include the Central and East Cove along with Southold Town Beach (West Cove) (see Figure 2). Monitoring activities may be conducted on easement areas obtained as part of the Hashamomuck Cove project as depicted on the Areas of Required Easement maps in Appendix B. Landowner permission is required before entering upon private land.
- The estimated interval for beach <u>re-nourishment</u> is approximately every five years however, the actual timing will depends on a variety of factors that influence erosion. No beach re-nourishment activities will be conducted during the period of April 1 to August 31, in any year. See section <u>Annual Piping Plover and Least Tern Monitoring</u> e. Other Beach Activities that may be carried out by the Town for additional information.

<u>Annual Piping Plover and Least Tern Monitoring:</u> Annual piping plover and least tern monitoring shall continue as previously conducted by the Town of Southold as described in the following sections:

#### a. Annual Surveys

- i. Annual surveys to monitor abundance and productivity of piping plover and least tern will be conducted by the Town of Southold from April 1 to August 15, or until all piping plovers have fledged (as defined previously), in the Hashamomuck CSRM project area; Central, East and West Cove (Southold Town Beach). The boundary of monitoring activities will include easement areas obtained as part of the Hashamomuck Cove project as depicted on the Areas of Required Easement maps in Appendix B. The Operation and Maintenance Plan, which describes maintenance activities to be conducted by the state or local project sponsor over the 50-year life of the project, requires annual monitoring as described in this plan.
- ii. Surveys should occur weekly, at a frequency greater than once per week in order to achieve a confidence rating of A or B, as defined by NYSDEC in their "Confidence rating for New York Piping Plover Productivity Data" guidance (Appendix A).
- iii. During the above monitoring efforts described in parts i and ii, any occurrence of red knots (*Calidris canutus*), within project site will be documented. This information

- should be included in the monitoring reports and the monitoring report provided to the USFWS.
- iv. Upon determining the presence of plovers, the Town's contractor should immediately notify the Town of Southold established Point of Contact (POC) (currently John Sepenoski 631-765-1800 x273) so he may inform town equipment operators and other individuals of the limits of encroachment and any record keeping or monitoring responsibilities. The Town will notify the USACE New York District POC (TBD) of any established nesting for piping plovers and least terns. In the same manner, the Town of Southold's POC will give notification to the USACE New York District POC when plovers have fledged.
- v. If any of the contractor services are to be performed on land that is not owned by the Town of Southold or included on the Hashamomuck Cove project required easement maps (see Appendix B), the Contractor shall be responsible for obtaining the landowner's prior permission before entering upon such land.
- vi. The Town or its contractor will be responsible for the purchase of all necessary materials and equipment required for the monitoring and management of beach nesting birds within the project area.
- b. Seasonal Symbolic Fencing "Symbolic fencing" refers to one or two strands of light-weight string, tied between posts to delineate areas where pedestrians and vehicles should not enter. The following section describes the timing, installation and removal of symbolic fencing in accordance with USFWS guidance (https://www.fws.gov/northeast/pipingplover/pdf/recguide.pdf):
  - Pre-fencing Pre-fence (fencing installed prior to nesting) shall be installed before or by April 1.
    - 1. Prior to April 1, the Town and/or its contractor will pre-fence all suitable habitat (as identified by USFWS) at the town public beach (West Cove) and within the Hashmomuck Cove project easement areas.
    - 2. Symbolic fencing that has the potential to be located on private property must have prior permission from the land owner before any activity can be implemented on that property. This includes any private property on the West, Central and East Cove (see Appendix B).
    - 3. Public access to the federal project is included in the Public Assess Plan (see Appendix C). Pre-fenced areas should provide adequate buffers for nesting shorebirds (50 meters for pedestrians).

#### ii. Additional fencing

- 1. Should birds set up territories (i.e. scrape, nest) outside of the pre-fenced areas, fencing must be erected/expanded immediately.
- 2. Walkways are provided in the Public Assess Plan (see Appendix C).
  Additional fencing should provide adequate buffers for nesting shorebirds

(50 meters for pedestrians). The Town and/or its contractor will coordinate with the USACE New York District, the NYSDEC and the USFWS to establish the location of additional fencing if shorebird activity is with 50 meters of a pedestrian walkway. Public access may be limited in order to allow habitat for federally or state endangered or threatened species and bird nesting habitat at certain times of the year.

#### iii. Reduction in fence areas

- 1. Fences should remain as long as viable eggs or unfledged chicks are present as fencing is intended to prevent accidental crushing of nests and repeated flushing of incubating adults, and to provide an area where chicks can rest and seek shelter when large numbers of people are on the beach.
- 2. If no shorebird nesting occurs within a portion/section of beach over a 3 year period, the extent of pre-fencing could be reduced based upon Town of Southold/USFWS/NYSDEC/USACE New York District coordination. The reduction of fencing will only be considered if, after evaluation, it is agreed upon by the Town, USFWS, NYSDEC, and the Corps that all conservation measures have been fully enacted. For example, suitable habitat must be adequately fenced and maintained, and predators, trash, and other disturbances (e.g. kites, pets) must be adequately managed, in each of the three years prior to the decision to reduce fencing. Additionally, the condition of the beach, the suitability of the habitat, the re-nourishment cycle, and other relevant factors will all be fully considered when determining any potential reduction of pre-fencing.
- 3. Should birds not nest within the fence by July 15<sup>th</sup>, the fencing may be removed or reduced upon coordination with the USFWS, NYSDEC and USACE New York District

### c. Predator Management

i. Exclosures (wire cages installed to reduce predator access to nests) should be utilized as necessary and appropriate.

#### d. Recreation and Human Disturbance

- i. Fireworks are illegal in NY State as is their use on any New York beach, especially where plovers nest in accordance with USFWS guidance. (<a href="https://www.fws.gov/northeast/pipingplover/pdf/fireworks.pdf">https://www.fws.gov/northeast/pipingplover/pdf/fireworks.pdf</a>) The Town of Southold strictly enforces the restrictions on fireworks on town beaches (particularly during times that fireworks are likely to be used such as the weeks surrounding the Fourth of July).
- ii. Bonfires The Town of Southold does not allow fires or alcohol at the town beach. Hours of operation at the town beach are dawn to 10pm, with lifeguards on duty from June 28 to September 1, from 11am to 5pm daily.

- iii. Kite flying Kite flying will be prohibited within 200 meters of nesting or territorial adult or unfledged juvenile piping plovers between April 1 and August 31 in accordance with the USFWS guidance.
   (https://www.fws.gov/northeast/pipingplover/pdf/recguide.pdf)
- iv. Pets The Town of Southold does not allow pets at the town beach during the recreational season. Pets are also not allowed on land that is within 50 feet of any recreation area that is posted for protection of piping plovers and other endangered species. At other times of the year, pets should be leashed and under control of their owners at all times. Private homeowners should be encouraged to keep dogs leashed and pet cats indoors.

#### e. Off Road Vehicle Use

- i. No off-road recreational vehicles (ORV) are allowed on Southold town beached. Essential vehicles are defined as vehicles which are required to provide for safety of pedestrians, law enforcement, maintenance of public property, or access to private dwellings not otherwise accessible. The following shall apply between April 1<sup>st</sup> and August 31<sup>st</sup>: speed of vehicles should not exceed 5 mph; essential vehicles should avoid driving on the wrack line, and travel should be infrequent enough to avoid creating deep ruts that may impede chick movements.
- ii. USFWS Guidance further recommends that if ruts (created from the use of essential vehicles) could impede chick movements, the use of essential vehicles should be further reduced and if, if necessary, restricted to emergency vehicles only.
- iii. There shall be no vehicles access to private dwellings from the beach.

#### f. Other Beach Activities that may be carried out by the Town

- i. Beach nourishments The estimated interval for re-nourishment is approximately every five years however, the actual timing will depends on a variety of factors that influence erosion. Only areas that demonstrate significant erosion would be renourished. The beach berm will be evaluated periodically, and when a sufficient amount of berm loss is observed, a re-nourishment event would be scheduled. Sand will be of similar grain size and color to existing conditions and will be trucked in from a certified upland sand source. No beach re-nourishment activities will be conducted during the period of April 1 to August 31, in any year. If annual monitoring shows that plovers and/or least terms are not using the area, further coordination with the NYSDEC and USFWS may be conducted to revise or modify this restriction.
- ii. Sand scraping The Town of Southold periodically grades littoral drift at Southold Town Beach (which forms above the low water elevation) to the upper portion of the beach. The activity, which is permitted by the NYSDEC, is conducted once a year on an as needed basis (in a one or two day event) using a crawler/front end loader. Historically this event takes place at the end of June but now will delayed to allow for a determination of presence of plovers. If no nesting activity has been observed by July 1, it is unlikely that beach scraping will have any beach nesting impacts and scraping will occur. However, if nesting activity is present prior this point in time,

beach scraping will not occur until after August 31.

### iii. Maintenance

- 1. Beach cleaning and wrack removal The Town of Southold Beach Staff shall not remove the wrack line one week prior to the estimated hatch date of a piping plover nest and for the duration of the chick rearing period in the areas along the swimming beaches. The wrack line should remain in front of the symbolically fenced areas for the duration of the breeding season (April 1 through September 1.
- 2. Beach access walkways/structures Southold Town Beach has a paved parking area which allows access to the beach. Public access pedestrian walkways/structures are included as a part of the Public Access Plan for other portions of the Hashamomuck Cove project. These walkways/structures would be permitted as part of the Hashamomuck Cove project and constructed as part of the project. Pedestrian traffic would be instructed through signage to use designated pedestrian paths to avoid disturbing the ecosystem and nesting birds.
- 3. Garbage and other public facilities The Southold Town Beach has restrooms, a picnic pavilion, picnic tables and benches. The public is instructed through signage not to leave or bury trash. Additional signage will be installed increase public awareness of the detrimental effects of unleashed dogs, feeding gulls, leaving trash, disturbing nesting birds, etc.

### g. Opportunities to enhance the nesting/foraging habitat

- i. Vegetation will be planted on the top of the berm above Mean High Water (MHW) in accordance with the Planting Plan (see Appendix D). Areas will be planted with native species such as American beachgrass (Ammophila breviligulata), seaside goldenrod (Solidago sempervirens), sea rocket (Cakile edentula var. edentula) and seaside spurge (Euphorbia polygonifolia). Plantings will be randomly spaced to mimic an early successional, sparsely- vegetated beach strand habitat. The area will be initially planted at a density optimal for piping plover habitat (approximately 30-40% cover). No additional planting or vegetation control measures will be undertaken. Optimal vegetative cover is expected to be maintain through periodic erosion events that will likely create open areas at intervals along the shore. If occupied piping plover habitat exceeds 40% vegetation cover due to lack of natural erosion events, it will be actively managed during the non-breeding season to lower the percent cover to no greater than 30%, prior to next the breeding season (before April 1)
- ii. Snow fence restrictions Snow fencing, if used to capture blowing sand, shall be limited to the landward toe of the berm and should be intermittent to allow passage for people, unfledged shorebird and waterbird chicks, and other wildlife that move between the beach stand habitat and the rest of the beach. Fencing should be placed perpendicular to prevailing wind directions to best trap naturally blowing sediments.

iii. The project area currently does not provide optimal habitat for horseshoe crab (*Limulus polyphemus*) or other shorebirds such as Least Tern and Red Knot.

Beach nourishment may be advantageous to horseshoe crab by creating spawning habitat and foraging habitat for other shorebirds.

#### h. Implementation of Monitoring

- i. Contracting Services The Contractor POC will provide the Town of Southold with progress reports upon request, and meet with representative of the Town of Southold as needed. The Contractor POC will provide an end of season report of all activities associated with this plan by October 15 of each year.
- ii. Funding for program (staff, equipment, additional resources) Funding for annual monitoring and on-going activities is provided by the Town. Additional support will be provided by the USACE to meet additional monitoring goals after the implementation of the project.
- iii. Enforcement The Town is responsible for enforcement of town laws and regulations with regard to the use of the public beach. Monitors will make note of violations to be addressed by law enforcement if necessary. Violations will also be documented in monitoring reports.

### i. Public Awareness and support of the program

- i. Public outreach Recommendations for improving conditions include increased signage to educate visitors about piping plovers; inform visitors about pet restrictions, encourage visitors not to feed gulls (which attracts more gulls) and to remove their trash.
- ii. The Town of Southold Partnerships with Audubon "Be a good egg program" or other organization.



Figure 1 – Project Location Map

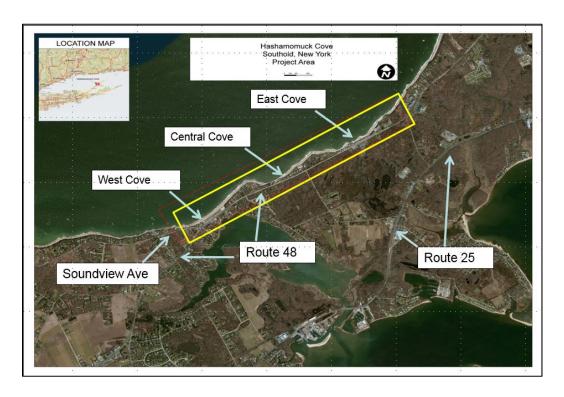


Figure 2 – Project Area

### Appendix A

# CONFIDENCE RATING FOR NEW YORK PIPING PLOVER PRODUCTIVITY DATA

#### CONFIDENCE RATING FOR NEW YORK PIPING PLOVER PRODUCTIVITY DATA

In order to collect accurate productivity data for piping plovers, site monitoring of 3 days/week or more is recommended. Due to staff shortages, many sites on Long Island cannot be monitored this frequently. For this reason, the following confidence ratings have been developed.

Confidence ratings should be assigned by site, not for each nest. However, in some cases, monitors may have varying confidence ratings for different portions of a site, usually as a result of varying nest check frequency. For example, at one survey site in 1994 with a total of 18 pairs, a plover biologist monitored one segment of the site with 13 pairs 3-4 times/week throughout the summer, yet another section of the site with 5 pairs was only monitored 2 times/summer. A confidence rating of A was assigned to the area with 13 pairs, and a confidence rating of D was assigned to the area with 5 pairs. The 13 pairs were include in the statewide average, the 5 pairs were not. Though dividing a site like this is better than excluding high confidence data because some data within the site is low confidence, it is necessary to be careful not to bias the productivity estimate towards pairs that are more or less successful than average.

Please assign each survey site a confidence rating based on the following categories.

- A = 1. All fledglings in the total were seen by plover biologists or another qualified individual either in sustained flight for \* 15 meters or at least 25 days old.
  - 2. It is very unlikely that any chicks fledged without being documented.
  - 3. It is very unlikely that fledglings in the total for this site came from another site.
- 4. You are highly confident that you did not over count or under count the total number of pairs (ex. You did not count a renest as an additional pair, or vice versa).
  - 5. You are confident that no nests were undetected.
- 6. The fate of all eggs is known (i.e. either there is a suspected cause of egg loss, or chicks are known to have hatched).

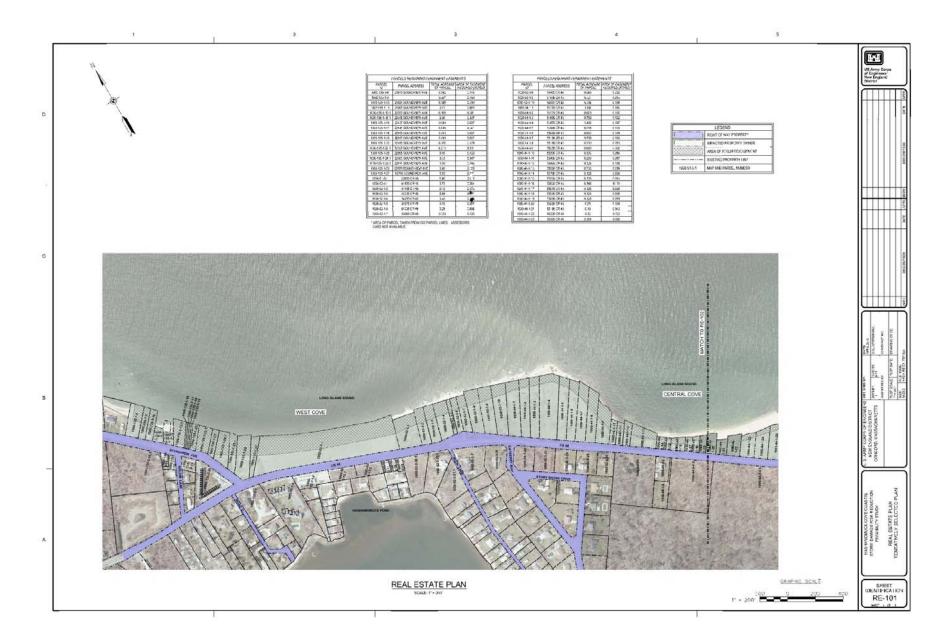
A-1

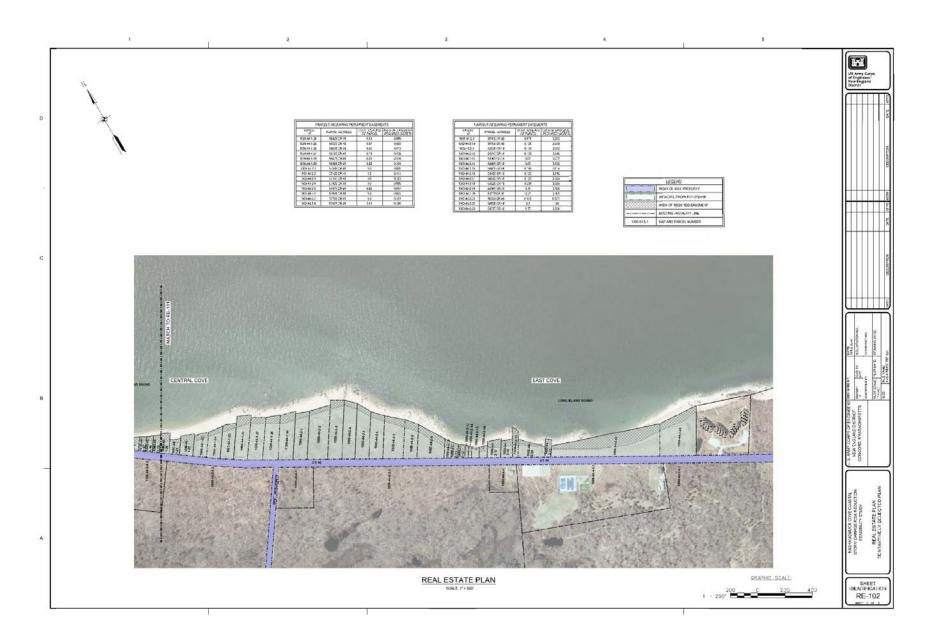
B = 1. Same as "A"

- 2. The possibility exists that additional chicks fledged. Ex. At a site where observations are difficult (chicks forage within beach grass or behind dunes), 3 chicks were consistently seen in a brood until 20 days old, after that only 2 chicks were seen. A 3rd chick may have been present, but undetected.
  - 3. Same as "A"
- 4. You are moderately confident that you did not over count or under count the total number of pairs, though a slight margin of error exists. Ex. A renest may have been counted as an additional pair, or an additional pair may have been counted as a renest.
- 5. It is possible that nests were undetected. Ex. 1st nests were found late in the season (end of May and after). They were probably renests, though you are not sure from where.
  - 6. Same as "A"
- C = 1. Chicks were seen at \* 20 days old, appearing healthy, and you have no reason to believe they did not fledge.
  - 2. Same as "B"
- 3. It is possible the fledglings you saw at this site came from another site. Ex. 2 chicks from a brood were not seen between ages 15-27 days old, but at 27 days old 1 fledgling at the site was observed. The fledgling could have come from an adjacent site which produced fledglings.
- 4. It is possible the total number of pairs was over counted or under counted, i.e. you could never get an exact count on the total number of pairs for reasons such as renesting, territoriality or defensive behaviors.
  - 5. Same as "B"
- 6. The fate of nests with eggs was not known for all pairs. Ex. The nest was missing around the time of the hatch date, with no signs of predation, yet chicks not seen.
- D = Qualifying criteria for A, B, or C cannot be met. The number of fledglings and/or total number of pairs cannot be determined.

# Appendix B

# Areas of Required Easement





# Appendix C Public Access Plan

# Hashamomuck Cove Draft Public Access Plan

# **Table of Contents**

Overview	2
Jser Fees	
Beach Access and Parking	
West Cove	
Central Cove	
East Cove	4
Beach Use	4
Figure 1: West Cove	5
Figure 2: Central Cove	E
Figure 3: East Cove7	

## Overview

The purpose of the Public Access Plan is to describe how public access will be provided to the restored berm and beach area that will be created by the U.S. Army Corps of Engineers (USACE) pursuant to the Engineer Regulation (ER) 1165-2-130. This regulation discusses federal participation in shore protection.

New York State Department of Environmental Conservation (DEC) believes that the overwhelming public benefit of the Hashamomuck Cove project is to preserve and protect an approximately 1.5 mile stretch of County Road 48, in addition to residential and commercial properties. County Road 48 parallels the coast and provides a primary transportation route at the northeast end of Long Island. The study area includes 58 residential parcels and 2 commercial parcels. The total value of the existing residential and commercial inventory is estimated to be \$46 million. Many of the private parcels have existing shorefront armor protection constructed to reduce storm damages.

Approximately 40% of the study area shoreline is protected by bulkheads, and approximately 15% of the shoreline is protected by stone revetments.

In the study area, residential and commercial parcels, the Southold Town Beach, and County Road 48 are vulnerable to erosion, wave attack, and inundation from coastal storms, exacerbated by increasing erosion rates. The Hashamomuck Cove project will provide beach nourishment to the study area in the form of a berm (50 ft. wide in the West, Central, and East Coast), with beach fill being built up to elevation +6 ft. NAVD88 in order to resemble an average natural elevation of existing shoreline.

# **User Fees**

With regards to user fees, ER 1165-2-130 paragraph 6h (1) states:

"A reasonable beach fee, uniformly applied to all, for use in recovery of the local share of project costs is allowable...Fees for such services must be applied uniformly to all concerned and not as a prerequisite to beach use."

The Town of Southold's Local Waterfront Revitalization Plan also states that "Non-residents must pay a fee to use some of the facilities." The Town of Southold currently has residents come to their Town Hall and purchase a \$5 sticker for their car for seasonal beach use. To build on this requirement, non-residents would also come to Town Hall prior to daily beach use and purchase a sticker. It was determined that for non-residents, \$5 for daily use was a reasonable fee (price amount subject to change with further consideration from all parties involved).

# **Beach Access and Parking**

Since ER-1165-2-130 requires public access every half mile, a public access location for each Cove would be required.

"In the event public access points are not within one-half mile of each other, either an item of local cooperation specifying such a requirement and public use throughout the project life must be included in the project recommendations or the cost sharing must be based on private use."

Public use is a condition of federally funded projects regarding hurricanes, abnormal tides, or lake flood protection. Paragraph 6h of ER-1165-2-130 states:

"In the case of beaches used for recreation, public use means use by all on equal terms. This means that project beaches will not be limited to a segment of the public...they must be open to all visitors regardless of origin or home area, or provide protection to nearby public property to be eligible for Federal assistance."

The plan provides multiple options for public access ways for each of the three Coves. The locations of the potential access way locations are identified for each Cove. Access ways will provide the public access from County Road 48 to the restored areas of the beach. It proposed that all access ways will be marked with signage which clearly indicates that public access ways are available for public use and contain information about beach use regulations, as appropriate.

It is the belief of the Non-Federal Sponsors that 2-3 parking spaces for each the Central and East Coves would be a reasonable amount of parking, considering the amount of spaces available in the West Cove.

#### West Cove

The West Cove is approximately 3,100 feet long and includes 25 private residential parcels and the Southold Town Beach. Public Access will be via the Southold Town Beach. The parking lot is approximately 800 feet long and will be able to hold at least 150 cars, as seen in Figure 1. This provides sufficient public access with parking for the West Cove.

### **Central Cove**

The Central Cove is approximately 2,600 feet long and is 100 percent private property with 20 residential parcels. The most ideal place for public access would be at 55835 County Road 48, which is unpaved and empty with the exception of a small elevated structure, as shown in Figure 2. It's large enough to fit 2-3 parking spaces, with the proper engineering.

However, due to a couple nor'easters in January and February 2017, the erosion and scouring due to wave action has worsened, making the elevation change quite steep to be able to have parking and public access. The parcel will need fill to accommodate parking.

#### East Cove

The East Cove is approximately 2,700 feet long. Private bulkheads are located in front of some of the 13 private residential parcels. There are four private commercial parcels. There are three parcels owned by Suffolk County that could be used for public access.

Parcel 44-2-14 is the westernmost and most ideal parcel of the three and is located in between two private residences. It would have to be paved to allow for parking and is also very narrow (only about 20 feet wide). There is enough for 2-3 parking spaces, and fencing would be needed alongside the houses. The ownership and current usage of the other two parcels makes them not an ideal location for public access. A map of the three parcels can be seen below in Figure 3.

### Beach Use

Public use will be allowed on the beach where sand replenishment by the USACE takes place with the exception of any vegetated portions of the restored beach. Public access may also be limited in order to allow habitat for federally or state endangered or threatened species and bird nesting habitat at certain times of the year.

Use of the beach, within the geographic limits of the Town of Southold, will be controlled by the laws and regulations of the Town of Southold. These regulations will apply equally to residents and the public.



Figure 1: West Cove

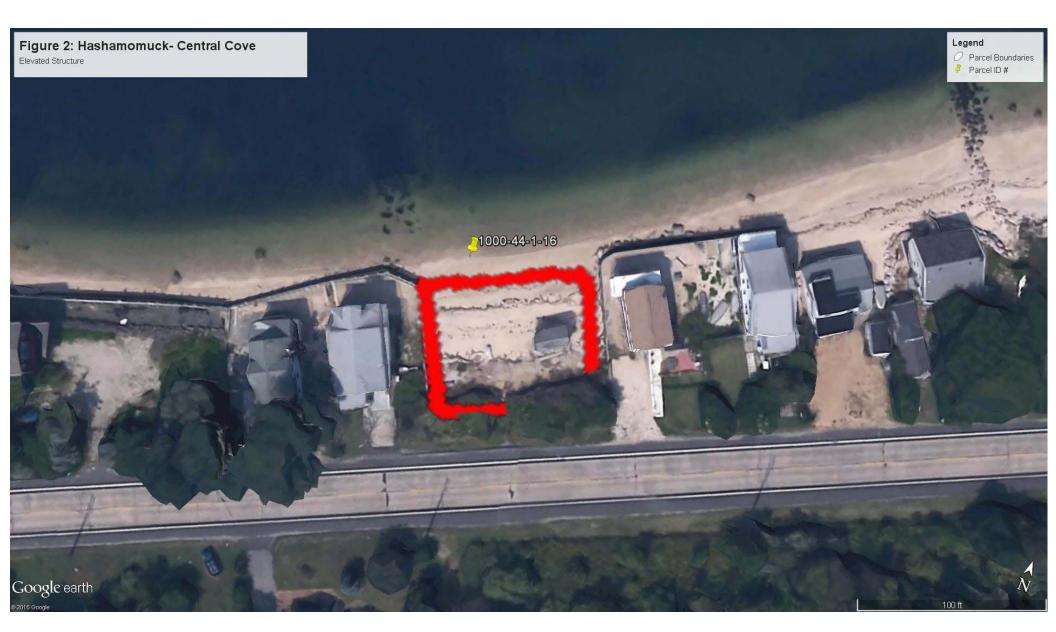


Figure 2: Central Cove



Figure 3: East Cove

Appendix D

Planting Plan





