



**US Army Corps
of Engineers®**
Philadelphia District
Wanamaker Building
100 Penn Square East
Philadelphia, PA 19107-3390
ATTN: CENAP-OP-R

Public Notice

Public Notice No.

Date

CENAP-OP-R-2018-0519-24

October 31, 2018

Application No.

CENAP-OP-R-2018-0519-24

In Reply Refer to:

REGULATORY BRANCH

This District has received an application for a Department of the Army permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) and Section 404 of the Clean Water Act (33 U.S.C. 1344).

The purpose of this notice is to solicit comments and recommendations from the public concerning issuance of a Department of the Army permit for the work described below.

APPLICANT: American Littoral Society
18 Hartshorne Drive, Suite 1
Highlands, New Jersey 07732

WATERWAY: Delaware Bay

LOCATION: Multiple locations along the Delaware Bay shoreline in New Jersey, from Middle Township in Cape May County (Green Creek), up-bay (i.e. north and west) to Fairfield Township in Cumberland County (Sea Breeze near Middle Marsh Creek). See figures showing potential project areas. Specific project sites would be identified as funding becomes available. In addition to the two municipalities identified above, potential project areas would also include portions of Maurice River, Downe and Lawrence Townships in Cumberland County.

Lower-most point (Green Creek): Decimal Latitude: 39.051733°; Longitude: -74.926627°
Upper-most point (Sea Breeze): Decimal Latitude: 39.337917°; Longitude: -75.326589°

ACTIVITY: Projects to be authorized by the proposed permit would focus on two specific activities: beach restoration (i.e., beach slope and berm improvements) and inter-tidal or shallow sub-tidal reef construction (i.e., low profile breakwater structures). Beach restoration would be through targeted sand placement at several locations along the Delaware Bay shore, and, where appropriate, the placement of inter-tidal or shallow sub-tidal reefs that would protect the beaches, allow for continued enhancement of the intertidal environment through sand accretion and would serve as living shoreline habitat for marine and estuarine species.

Note that this application is for a 10-year permit to conduct the described activities. Impacts or coverage areas are provided as maximum “footprints” in any given year of the proposed permit.

For beach restoration, sand grain analysis would be conducted to ensure the grain size and color from the sand sourced for placement is compatible with the native sand and in compliance with State requirements for habitat restoration. Sand would be obtained from local upland sand mines and would be delivered to a designated staging area at each beach by truck. Using spreaders, the sand would be moved and graded according to site-specific project plans. No sand placement or other project activities would occur during red knot migration periods.

For the reefs, bagged shell and/or other approved materials would be transported on pallets by truck to each beach. The materials would be moved to staging areas utilizing a low-impact vehicle, (e.g., a Mudd Ox). Applicant staff and supervised volunteers would carry the materials by hand or via the low-impact vehicle to pre-determined locations for placement. Where warranted and as dependent upon specific tide patterns and wave action, the bagged reef materials would be secured with rebar and line.

The sand placement and intertidal reef creation would be performed in the same manner and according to the same specifications utilized for previous projects completed by the applicant, as listed below with the corresponding Corps permit number:

Reeds Beach to Pierces Point (beach restoration):	CENAP-OP-R-2013-0152-24
Dyers Cove (beach restoration):	CENAP-OP-R-2016-0190-24
Reeds Beach (reef project):	CENAP-OP-R-2014-0234-24
Dyers Cove (reef project):	CENAP-OP-R-2016-0192-24
Thompson's Beach (reef project):	CENAP-OP-R-2016-0193-24
Moores Beach (reef project):	CENAP-OP-R-2016-0194-24

Further Details on Beach Restoration:

Beach and berm restoration would include placement and spreading of sand using heavy equipment at up to 3 beaches per year (funding dependent) as identified on the included figures. Beaches would be restored at a 15:1 slope, with sand volumes and restoration length ranging from: a) 3,000 to 100,000 cubic yards of sand; and b) 0.25 to 1.00 linear mile of beach. These numbers represent the maximum cumulative totals for up to three projects in a given year. This would result in a maximum coverage or impact area of 18.40 acres in a given year. Of that amount, there would be up to 18.09 acres of impact below the high tide line (i.e. within the Corps jurisdiction). Approximately 5.69 acres of this would be below the mean low water line (MLWL). The rest would be in the inter-tidal zone. A plan for the prior beach restoration project at Dyer Cove is included as an example. The Society is proposing to utilize similar methodologies for the restoration of beaches in the project area.

Prior to the commencement of beach restoration and/or intertidal reef activities, rubble and debris would be removed from the beaches and taken to an appropriate waste facility.

As most of the Bay beaches do not have an offshore sand source, restoration projects to date have utilized sand of appropriate grain size and color obtained from local sand quarries. Using heavy machinery, the sand is placed and moved to appropriate elevations. Grade stakes are used to guide the sand placement and to ensure proper elevations are met. The applicant intends to continue with this methodology and sand sourcing for beach restoration in the project area.

Projects located closer to Cape May Point may be able to access offshore sand stockpiled from dredging projects. If stockpiled offshore sand is available and utilized, grain size and color analysis would be performed to ensure the material is comparable to the native sand. In addition, the methodology described above for movement and placement of sand on designated beaches would be employed.

The applicant has obtained sand for its previous restoration projects from the inland sand quarries identified below. Due to transportation costs, it is most feasible to use a sand source as close to the project area as possible. Because the project areas have not yet been formally identified, it may be determined that the project is better served by a sand source not listed below. If additional sand sources are identified for the project, the Society would ensure it is of equal quality and would communicate the details regarding the new source to the Corps in advance of its use.

Potential sand sources from inland sand quarries (with approximate latitude and longitude):

- DunRite Sand & Gravel Co. Inc., Vineland, NJ (39.408111°; -74.962667°)
- H4 Enterprises, LLC, Cape May Court House, NJ (39.113361°; -74.823583°)
- Ricci Bros. Sand Co., Inc., Port Norris, NJ (39.257722°; -75.060778°)
- Hansen Sand & Gravel, Galloway, NJ (39.482861°; -74.465361°)

Further Details on Inter-Tidal / Sub-Tidal Reefs:

Reefs would be inter-tidal, or shallow sub-tidal, double-rowed, made of bagged shell, and positioned in a saw tooth configuration with at least 5 foot gaps between segments to allow for movement of marine species. Segments would be approximately 5 feet wide, and would range between 10 to 30 feet in length, 2 to 3 feet high, and positioned from 25 to 50 feet seaward of the MLWL. Up to 3 reefs per year would be placed, averaging 200 to 300 linear feet each in length, and covering between approximately 750 to 1,000 square feet per row, or 1,500 to 2,000 square feet per reef (0.034 to 0.046 acre). This would result in a maximum of up to 900 linear feet per year for up to 3 projects (maximum 300 LF per project), covering up to 6,000 square feet (0.138 acre) maximum in a given year.

Reef construction would be conducted to help stabilize the beach slope, retain sediment normally lost to wave action and to allow that sediment to build up over time through accretion. Sites for

reef construction are identified based upon the specific topography and hydrology of the project area, and may be reconfigured in accordance with landowner permissions or state regulations.

The standard reef constructed by the Society utilizes shell, normally whelk, bagged in polyethylene net material, which are stacked to form several “reef blocks.” These reef blocks make up “reef segments” approximately two hundred feet long. Two “reef segments” are paired up, one behind the other, to form the completed double-row. A plan for a prior reef project at Dyer Cove is included as an example.

The applicant’s standard reef model incorporates gaps within the structures to reduce any potential impingement issues for spawning horseshoe crabs. In addition, a “sawtooth” configuration is utilized in which each reef block is angled to promote horseshoe crab movement through the reef structure. The applicant performs monitoring of their structures for any such impacts to spawning horseshoe crabs, which they have not observed to date.

All reef block locations are marked in advance with stakes that define the outer edge of the structure. The stakes are located via GPS coordinates determined by the plan and are removed once the reef is completed.

Shell is transported from a processing facility to a storage location and left to cure for a period of six months to one year. The shell pile is currently maintained at an oyster company’s facility in Bivalve, NJ. Shell bagging is conducted at the cured shell pile with the help of volunteers and bags are palletized for transportation to the site when reef building commences.

With the help of volunteers, bags are carried out to the pre-defined locations and arranged by hand into reef blocks. The height of the structures determines the bag number of bags needed but the structures go from a wider base to a narrow top.

Shell for the intertidal reef projects currently comes from a local shellfish processor and consists of shell from locally-sourced native shellfish species. The shell is secured and transported by local watermen. This source is noted below, but depending on project needs, additional shell may be sought from a currently unidentified processing facility or through a shell recycling program targeting local restaurants. If any new shell sources are identified for future projects, the Society will ensure the quality of the source is equal to the identified source below, that the product utilized consists of shell from native shellfish species and that details regarding the shell is communicated to the U.S. Army Corps in advance of its use.

Primary shell source:

- LaMonica Fine Foods - 48 Gorton Rd, Millville, NJ 08332 (39.370750°; -75.004833°)

The applicant has not applied to New Jersey Department of Environmental Protection (NJDEP) for any project-specific authorization(s) at this time. However, no work, as proposed in this application, would take place unless and until such work has been authorized by the State of New Jersey, including the necessary project-specific concurrence on consistency with the State's approved Coastal Zone Management Program, and a Section 401 Water Quality Certification, as well as any necessary landowner permission. As noted in federal regulations at 33 CFR 320.4(g)(6), a Department of the Army (DA) permit "does not convey any property rights, either in real estate or material, or any exclusive privileges. Furthermore, a DA permit does not authorize any injury to property or invasion of rights or any infringement of Federal, state or local laws or regulations. The applicant's signature on an application is an affirmation that the applicant possesses or will possess the requisite property interest to undertake the activity proposed in the application. The district engineer will not enter into disputes but will remind the applicant of the above. The dispute over property ownership will not be a factor in the Corps public interest decision."

Applicant's Statement Pursuant to Regulations at 33 CFR 325.1(d)(7) and 33 CFR 332.4(b)(1):

The applicant has stated the following as their position with regard to (a) avoidance and minimization of impacts to aquatic resources and (b) compensatory mitigation for such impacts:

- (a) "Aquatic impacts will be avoided or minimized to the extent practicable through the following:
- Impacts to low relief sandy habitat will occur from oyster reef construction. The sandy habitat will be covered with whole whelk shell, and created oyster reefs will provide an improved, more dimensional substrate that can be used by fish and invertebrates for protection and foraging. Overall, it is estimated, based on height of proposed example reefs an additional 1,350 feet of surface area will be created around the perimeter of the reefs and allow for improved foraging and habitat use opportunities.
 - The *rufa* red knot was designated as "threatened" under Endangered Species Act, effective January 12, 2015. Reef construction will not be conducted during horseshoe crab spawning season or red knot migratory stopover.
 - Best and Adaptive Management Practices were developed in cooperation with the US Fish and Wildlife Service (USFWS) and will be incorporated into project plans.
 - Intensive biological and physical surveys of the project sites and adjacent beaches will be implemented in cooperation with the NJ Division of Fish and Wildlife. If monitoring data determines reef placement is an impingement hazard to the horseshoe crab, the American Littoral Society will remove the reef.
 - Short-term and localized impacts on water quality due to increased turbidity are anticipated during construction, but will quickly diminish after construction is complete."

(b) "Compensatory mitigation should not be required for this project. This is a habitat restoration project intended to restore, enhance and protect beach and intertidal habitat along the Delaware Bay in New Jersey. Impacts to low relief sandy habitat will occur from oyster reef construction. Additionally, it is estimated, based on the average height of the example proposed reefs that an approximate additional 1,350 feet of surface area will be created around the perimeter of the reefs allowing for improved foraging and habitat use opportunities. The reefs will be monitored throughout to further assess the potential for any adverse impact."

PURPOSE: The applicant has stated their purpose as follows: "The purpose of this project is to restore the habitat in several prime locations traditionally used by horseshoe crabs to its pre-Sandy conditions and to incorporate features, i.e., intertidal reefs that will further protect the habitat and allow for its ongoing natural enhancement through sand accretion. Specifically, debris removal and sand placement at proposed sites will restore habitat for spawning horseshoe crabs and restore important foraging grounds for migratory shorebirds, including the Federally-listed threatened Red Knot. To minimize the effects of erosion at the restored sites, intertidal reefs or shelled living shorelines will be strategically placed. Together, these efforts will also restore and improve the conditions for the numerous species that coexist in this habitat, increase the biodiversity of the marine estuarine environment."

A preliminary review of this application indicates that species listed under the Endangered Species Act (ESA) may be present in the action area. There is no designated or proposed critical habitat for such species in the action area. The Philadelphia District of the Corps of Engineers will forward this public notice to the U.S. Fish and Wildlife Service and the National Marine Fisheries Service. The Philadelphia District will evaluate the potential effects of the proposed actions on ESA listed species and will consult with the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service as appropriate pursuant to Section 7 of the ESA, as amended. ESA Section 7 consultation, if required, will be concluded prior to the final decision on this permit application.

The decision whether to issue a permit will be based on an evaluation of the activity's probable impact including its cumulative impacts on the public interest. The decision will reflect the national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the work must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the work will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs and welfare of the people. A Department of the Army permit (or modification)

will be granted unless the District Engineer determines that it would be contrary to the public interest.

The Corps of Engineers is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Comments on the proposed work should be submitted, in writing, within 30 days to the District Engineer, U.S. Army Corps of Engineers, Philadelphia District, Wanamaker Building, 100 Penn Square East, Philadelphia, Pennsylvania 19107-3390.

The permit area may yield resources eligible for inclusion in the National Register of Historic Places. The Philadelphia District Cultural Resources Specialist will evaluate potential effects to historic properties, and will consult with New Jersey Historic Preservation Office pursuant to Section 106 of the National Historic Preservation Act as necessary."

The Magnuson-Stevens Fishery Conservation and Management Act requires all federal agencies to consult with the NOAA Fisheries all actions, or proposed actions, permitted, funded, or undertaken by the agency that may adversely affect Essential Fish Habitat (EFH). A preliminary review of this application indicates that EFH is present within the project area. The Philadelphia District will evaluate the potential effects of the proposed actions on EFH and will consult with NOAA Fisheries as appropriate. Consultation, if necessary, will be concluded prior to the final decision on this permit application.

In accordance with Section 307(c) of the Coastal Zone Management Act of 1972, applicants for Federal Licenses or Permits to conduct an activity affecting land or water uses in a State's coastal zone must provide certification that the activity complies with the State's Coastal Zone Management Program. The applicant has stated that the proposed activity complies with and will be conducted in a manner that is consistent with the approved State Coastal Zone Management (CZM) Program. No permit will be issued until the State has concurred with the applicant's certification or has waived its right to do so. Comments concerning the impact of the proposed and/or existing activity on the State's coastal zone should be sent to this office, with a copy to the State's Office of Coastal Zone Management.

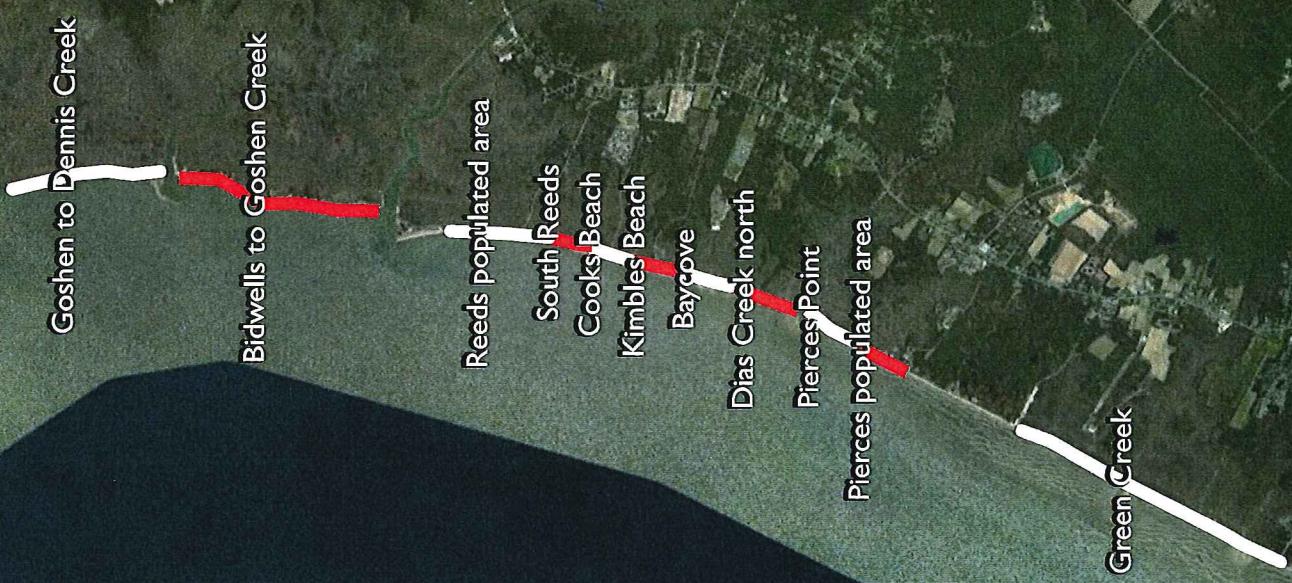
In accordance with Section 401 of the Clean Water Act, a Water Quality Certificate is necessary from the State government in which the work is located. Any comments concerning the work described above which relate to Water Quality considerations should be sent to this office with a copy to the State.

The evaluation of the impact of the work described above on the public interest will include application of the guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act.

Any person may request, in writing, to the District Engineer, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for a public hearing shall state in writing, with particularity, the reasons for holding a public hearing.

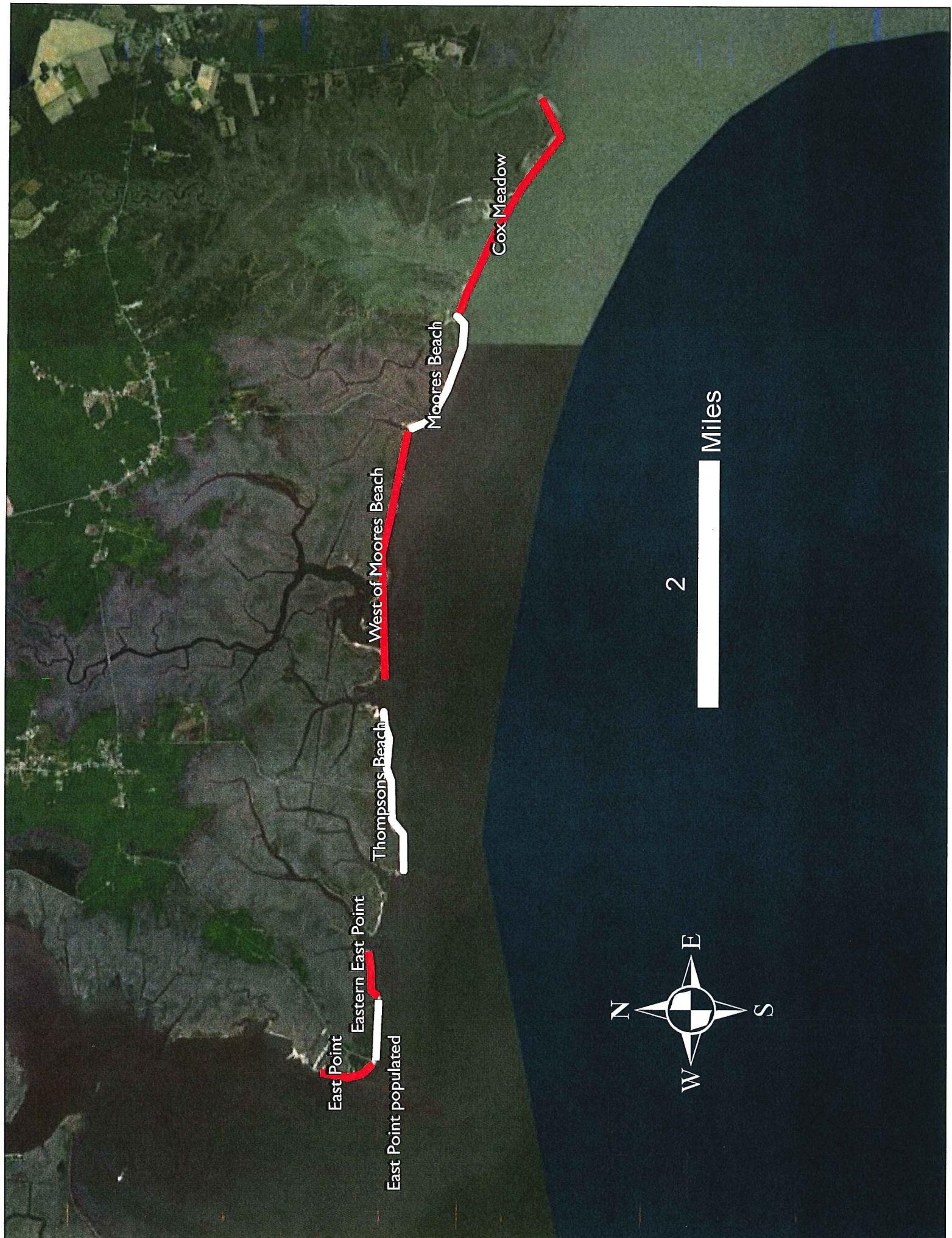
Additional information concerning this permit application may be obtained by calling James Boyer at (215) 656-5826, by electronic mail to James.N.Boyer@usace.army.mil, or by writing to this office at the above address.

Edward E. Bonner
Chief, Regulatory Branch

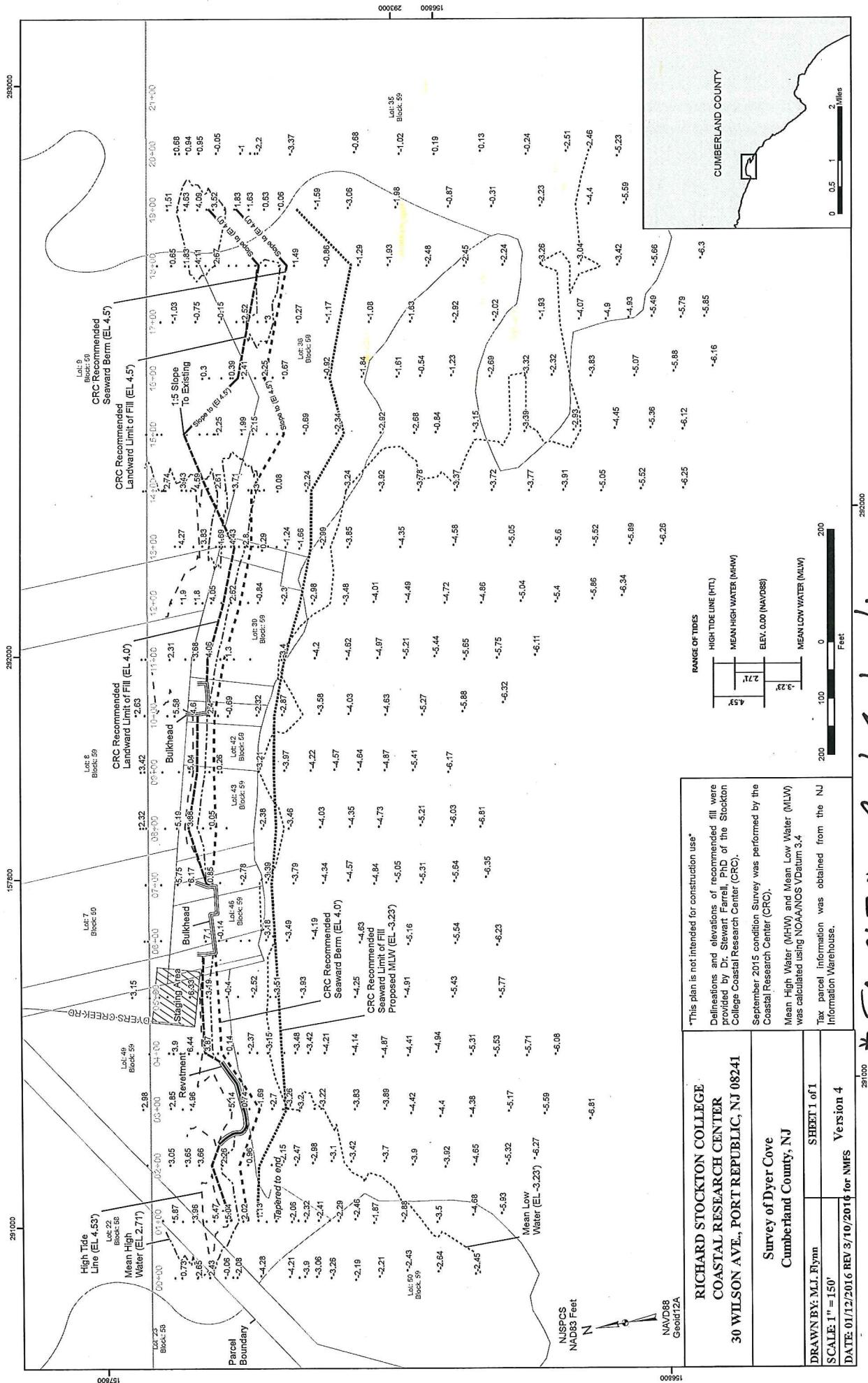


3 Miles









SAMPLE - Beach Restoration

