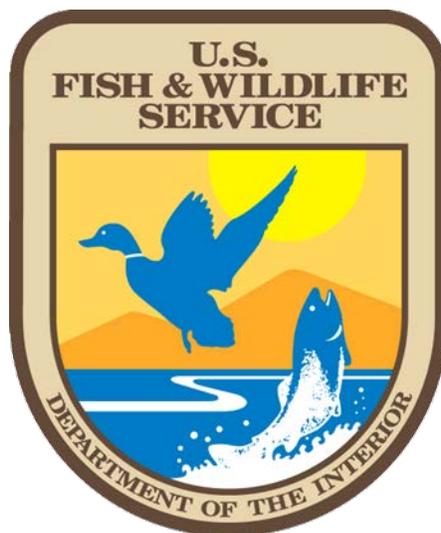


**STREAMLINED BIOLOGICAL OPINION
for the
U.S. ARMY CORPS OF ENGINEERS**

2014-2015

**ELBERON to LOCH ARBOUR PROJECT AREA
BEACH EROSION CONTROL PROJECT**

MONMOUTH COUNTY, NEW JERSEY



Prepared for:
U.S. Army Corps of Engineers
New York District
New York, New York 10278-0090

April 2014



United States Department of the Interior



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In Reply Refer To:
2014-F-0305

Nancy Brighton, Acting Chief
Environmental Analysis Branch
U.S. Army Corps of Engineers
26 Federal Plaza, Jacob K. Javits Federal Building
New York, New York 10278-0090
Attn: Howard Ruben

Dear Ms. Brighton:

This letter submits the U.S. Fish and Wildlife Service's (Service) Streamlined Biological Opinion (SBO), prepared in accordance with Section 7 of the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*), on the effects of the U.S. Army Corps of Engineers, New York District's (Corps) proposed 2014-2015 beach nourishment cycle of Elberon to Loch Harbour, Monmouth County, New Jersey. This project was included in the Service's 2002 Programmatic Biological Opinion (PBO), Monmouth County, New Jersey to ensure the protection of the federally listed (threatened) piping plover (*Charadrius melodus*) and seabeach amaranth (*Amaranthus pumilus*) from the Corps' Beach Erosion Control Project (BECP). The project is funded under The Disaster Relief Appropriations Act-2013 (PL 113-2).

This SBO is based on information documented in the PBO and additional information provided by the Corps, New Jersey Department of Environmental Protection's Endangered and Nongame Species Program, and Conserve Wildlife Foundation of New Jersey. A complete administrative record of this consultation is on the file in the Service's New Jersey Field Office.

The Service appreciates the Corps' efforts to protect federally listed species from the ongoing implementation of the BECP. If you have any additional questions or concerns regarding this consultation, please contact Dennis Hamlin at (609) 383-3938 x14 or dennis_hamlin@fws.gov.

Sincerely,

Eric Schrading
Field Supervisor

Enclosure

bcc: NJFO (2)
cc: pdf by email:
Corps (NY), Howard.Ruben@usace.army.mil
ENSP, dave.jenkins@dep.state.nj.us
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Service, Anne_Hecht@fws.gov

I. INTRODUCTION

This constitutes the U.S. Fish and Wildlife Service's (Service) Streamlined Biological Opinion (SBO), prepared in accordance with Section 7 of the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) (ESA), on the effects of the U.S. Army Corps of Engineers, New York District's (Corps) proposed 2014-2015 beach nourishment in the Southern Reach of Section I of the Beach Erosion Control Project (BECP) stretching from Elberon (an unincorporated community that is part of the City of Long Branch) south to Loch Arbour (project area).

The Corps proposes to include the subject beach nourishment as a regularly scheduled component of the Atlantic Coast of New Jersey, Sandy Hook to Barnegat Inlet, BECP. Sections I and II of the BECP provide a 50-year program of beach nourishment for a 21-mile section of New Jersey's Atlantic Coast from Sea Bright Borough to Manasquan Borough, Monmouth County. Initial nourishment in Section I (Sea Bright to Deal) began in 1994; initial nourishment in Section II (Asbury Park to Manasquan) began in 1997 (Service 2002). Nourishment of the Elberon to Loch Arbour reach was excluded from the Section I schedule due to unresolved real estate issues. Subsequent to impacts from both Hurricane Irene in 2011 and Hurricane Sandy in 2012, the Hurricane Sandy Disaster Relief Appropriations Act of 2013 (PL 113-2) gave the Corps authority and funding to complete beach nourishment of this previously authorized, but uncompleted reach of BECP Section I.

In September 2002, the Corps and the Service completed programmatic formal consultation for all planned BECP activities for all of Sections I and II through 2053. The Service's September 2002 Programmatic Biological Opinion (PBO) assesses project effects on the federally listed (threatened) piping plover (*Charadrius melodus*) and seabeach amaranth (*Amaranthus pumilus*) over the remaining life of the BECP and establishes a framework for streamlined consultation prior to each planned renourishment (Service 2002).

This SBO is based on information documented in the PBO, a letter received by the Service's New Jersey Field Office (NJFO) from the Corps on April 7, 2014; e-mails and telephone discussions with staff from the Corps and the New Jersey Department of Environmental Protection's (NJDEP) Division of Fish and Wildlife, Endangered and Nongame Species Program (ENSP)/Conserve Wildlife Foundation of New Jersey (CWFNJ); and information and materials collected in the course of providing the Service's April 11, 2014 Planning Aid Letter for the Corps' Elberon to Loch Arbour Reach Beach Erosion Control Project. A complete administrative record of this consultation is on file with the Service's NJFO.

II. CONSULTATION HISTORY

April 7, 2014

The Service received the Corps' April 3, 2014 letter requesting to initiate formal consultation under Section 7(a) (2) of the ESA the Corps Elberon to Loch Arbour beach nourishment project, Monmouth County, New Jersey. The letter further requests that the Service utilize the 2002 PBO for Monmouth County based SBO process as previously used for implementing recent BECP Section I renourishment actions. Anticipated construction schedule:

advertise construction contract in June 2014; award construction contract in September 2014; begin construction in October 2014.

April 17, 2014

Via email, the Service received clarification of project funding sources; berm specifications; and construction, nourishment and design template schematics.

III. BIOLOGICAL OPINION

A. DESCRIPTION OF THE PROPOSED ACTION

1. Project Overview and Schedule

The proposed beach nourishment in the project area is consistent with the overall BECP project as described in the PBO. As the Elberon to Loch Arbour reach has not been occupied by breeding piping plovers during the past three breeding seasons and therefore classified as an unoccupied reach, there are no seasonal restrictions for the project. The Corps proposes to build the authorized construction template using renourishment material from the approved offshore Sea Bright borrow area. Renourishment material will be transported from the borrow area via hopper dredge to a booster pump, then pumped onto the renourishment area through a temporary pipeline and graded with earth moving equipment (Corps 2014).

The Corps proposes to place approximately 4,500,000 cubic yards of sand with a 100-foot wide beach berm at a height of +9.3 feet NAVD 88, with a 2-foot storm cap. This fill would cover approximately 3.5 linear miles, extending from Lake Deal (Loch Arbour) to just north of Lake Takanassee (Elberon section of the City of Long Branch) (H. Ruben, pers. comm. 2014). The Corps proposes to commence beach nourishment activities beginning in October 2014 and completing work by November 2015. The action area includes the offshore Sea Bright borrow area and areas north of the project area where sand will be carried via longshore drift. The Corps was unable to provide a projection on how far north sand might accumulate over the next 4 or 5 years.

2. Conservation Measures

For the 2014-2015 Elberon to Loch Arbour beach nourishment project, the Corps will not need to implement the majority of the binding Conservation Measures as this reach of the project is considered unoccupied reach. Work may proceed in these areas without seasonal restrictions. Work in unoccupied reaches during the nesting season will still be avoided if possible. As per the PBO, if any protected species are observed at any time the Corps will immediately notify the Service to determine if further consultation is needed. All Conservation Measures are consistent with the PBO.

B. SPECIES STATUS

Relevant biological and ecological information considered by the Service in formulating the 2014-2015 Elberon to Loch Arbour SBO was provided in the PBO. New biological information regarding regional declines in seabeach amaranth and New Jersey's statewide piping plover productivity (2003-2013) has subsequently become available since issuance of the Service's

September 2002 PBO and is summarized below. All other biological information described within the PBO remains pertinent and is incorporated into this document by reference.

1. Regional Decline of Seabeach Amaranth

As detailed in the Service's 2012 seabeach amaranth year-end report, seabeach amaranth has undergone a distinct decline in Section I of the BECP since its peak in 2002 (Service 2013). Unpublished survey data for the year 2013 indicate a continued decline from 2012 levels.

2. Piping Plover

A total of 108 pairs of piping plovers nested in New Jersey in 2013, an 11% decrease compared to 2012 (121 pairs) (ENSP/CWFNJ 2013). Statewide productivity was 0.85 fledglings per pair, a slight increase from 2012 (0.72 fledglings/pair), but well below the record-setting level recorded in 2010 (1.38 fledglings/pair). These numbers continue to remain well below the New Jersey recovery goal of 200-230 pairs (NY/NJ region goal = 550 pairs) and a productivity rate goal of 1.5 chicks per pair (Service 1996).

C. ENVIRONMENTAL BASELINE

The environmental baseline for the Corps' overall program for Federal beach nourishment, renourishment, stabilization, and restoration activities along the Atlantic Coast of New Jersey within the Corps was fully described in the Service's PBO. Substantive changes to the environmental baseline relevant to formulation of this SBO are provided below.

Within the project area, very few sections of beach provide potential habitat for protected avian and plant species including the federally listed piping plover, the State-listed (endangered) least tern (*Sterna antillarum*), the State-listed (endangered) American oystercatcher (*Haematopus palliatus*) and the Federal proposed (threatened) species, State-listed (endangered) rufa red knot (*Calidris canutus rufa*). Please note the rufa red knot is being reviewed for Federal listing. A listing determination for the red knot will be published in the Federal Register by September 30, 2014. The federally listed seabeach amaranth, the State-listed (endangered) seabeach knotweed (*Polygonum glaucum*) and the State-listed slender seapurslane (*Sesuvium maritimum*) are plant species that have occurred in varying locations along beaches near the project area since initial nourishment of those reaches of beach. No current nesting activity for the piping plover, rufa red knot, least tern or the American oystercatcher has been documented within the project area (T. Pover, pers. comm. 2014).

Within the project area, only the City of Long Branch (of which Elberon is part) has an approved Beach Management Plan (BMP) in place. The BMP typically designates areas within municipalities that are managed to promote recovery of threatened or endangered species. Since no BMPs exist for the Village of Loch Arbour, the Borough of Allenhurst, the Borough of Deal, no such protected areas have been designated, and no mechanisms established for balancing the needs of listed species with recreational beach use. As BMPs are a valuable management tool, each municipality within the project area will be required (via the State Aid Agreement with the New Jersey Bureau of Coastal Engineering) to complete a BMP within 18 months of the project. Individual BMPs are typically reviewed and reassessed every 5 years to account for changing

environmental and community concerns. The BMP for the City of Long Branch has been active since May of 2008 and will require renewal.

1. Species Status within the Project Area

a. Seabeach Amaranth

Since the rediscovery of seabeach amaranth in New Jersey in 2000, no plants of this species have been identified in the project area.

b. Piping Plover

In 2013, piping plovers did not nest in the project area and have not been known to nest in this reach since record keeping began in 1986.

2. Factors Affecting the Species Environment

The Service incorporates into this document by reference the detailed discussion in the PBO of factors affecting piping plovers and seabeach amaranth within the project area, including habitat conditions, predation, recreational use, and presence of other beach nesting birds. Important changes in habitat conditions have been observed since the September 2002 PBO. It appears that the created habitat is stabilizing more rapidly than originally anticipated in some areas of the BECP, especially with Monmouth Beach for instance. Habitat created by the BECP is temporarily suitable for listed species, but must be restored and maintained to persist. Most beaches in the project area have narrowed through erosion. In addition, area beaches typically include sharp, steep slopes leading to an upper terrace vegetated with a dense, mature, dune plant community that is incompatible with listed species, which require sparse vegetation especially on beaches without overwashes (Fraser 2006, Maslo *et al.* 2011). In a recent study, Malso *et al.* 2011 documented important habitat attributes that contribute to piping plover chick survival. The study found that nests primarily occur in three distinct habitat conditions defined by percent shell and pebble cover, vegetative cover, and distance to nearest dunes and the high tide line. In areas previously used by piping plovers in the project area, it is important to maintain these habitat conditions (*e.g.*, sparse vegetation; limited dunes) by activities proposed in the BECP, as well interdependent activities proposed by other entities.

These beaches also include potential areas for the invasive, non-native Asiatic sand sedge (*Carex kobomugi*). None of the four municipalities in the project area have approved BMPs to date; development of BMPS is expected to benefit and listed species that may colonize the project area following renourishment.

D. EFFECTS OF THE ACTION

The Service has reviewed information provided by the Corps for the 2014-2015 BECP Section I Elberon to Loch Arbour beach nourishment project and determined that the potential effects of the project are consistent with those described in the PBO. Those effects are hereby incorporated by reference. Past shoreline stabilization (*i.e.*, extensive system of hard stabilization structures and upland development) within the project area has interfered with the formation and maintenance of natural habitats for piping plovers and seabeach amaranth. The project would further perpetuate shoreline stabilization and interfere with natural processes, such as the

formation of overwash areas that would provide optimal habitat for piping plovers and seabeach amaranth, extending along approximately 3.5 linear miles of Atlantic coastal shoreline.

Initial construction of Federal nourishment projects within the BECP created potentially suitable habitat for piping plovers and seabeach amaranth. Although the Corps nourishment projects can create sandy beach habitat that may attract piping plovers, the habitat created is expected to be of lesser quality than habitat that is formed through natural coastal processes such as overwash. Subsequent renourishment events throughout the BECP can be expected to benefit piping plovers and seabeach amaranth by maintaining sandy suitable- but suboptimal beach habitats over the life of each project, provided recreational and other activities are adequately managed.

1. Habitat Changes

Decades of erosion have eliminated any suitable habitat that may have historically been present on beaches in project area. There have been no previous beach nourishment activities conducted in the Elberon to Loch Arbour reach of BECP Section I. After the proposed nourishment is completed it is expected that beach erosion will continue again without more frequent renourishment. In addition, the New Jersey coast experienced several major tropical storms and hurricanes over the past decade, which has eroded much of the project area beaches. Beach erosion caused by Hurricane Sandy in the project area was severe. Beach berms and dunes have been lost throughout the entire length of the project area and severe erosion now extends into unprotected upland areas.

Over the 6-year life of the 2014-2015 Elberon to Loch Arbour, the Service anticipates no piping plovers will nest within the project area, but with the creation of wider beaches the possibility exists and post project monitoring will determine if listed species will colonize the project area in the future.

2. Destruction of Seabeach Amaranth

Since there has been no documented identification of seabeach amaranth plants here, impacts from burial of the seedbank will be minimal. Given the unpredictable nature of colonization and the hardiness of its seeds (which could be contained in borrowed sand), it is possible that some seabeach amaranth plants could be destroyed if the nourishment activities extend into the growing season of 2015. Effects to any new seabeach amaranth plants will be minimized by implementing Conservation Measures described in the Service's September 2002 PBO.

3. Reduction of Piping Plover Prey Base

Any plovers that attempt to nest in the project area in 2015 may encounter a lowered abundance of invertebrate prey relative to unnourished beaches.

E. CONCLUSION

Actions associated with the 2014-2015 project area nourishment and effects to listed species are consistent with those identified and discussed in the Service's PBO. After reviewing the size and scope of the project, the Conservation Measures, the Environmental Baseline, the status of federally listed species within the project area, and the effects of the action consistent with the PBO, the Service's biological opinion is that the 2014-2015 project area nourishment is not likely

to jeopardize the continued existence of the piping plover or seabeach amaranth. No Critical Habitat has been designated in the project area for these species; therefore, no Critical Habitat will be affected.

IV. INCIDENTAL TAKE STATEMENT

A. DEFINITION OF INCIDENTAL TAKE

Section 9 of the ESA and the Federal regulation pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct. Harm is further defined by the Service to include significant habitat modification or degradation that results in the death or injury to listed species by significantly impairing essential behavioral patterns such as breeding, feeding, or sheltering. Harass is defined by the Service as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns, which include, but are not limited to, breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of carrying out an otherwise lawful activity.

B. EXTENT OF ANTICIPATED TAKE

The Service does not anticipate any take of plovers, based on the lack of nesting history in the project area. The project will contribute incrementally to the perpetuation of roughly 3.5 miles of shoreline stabilization that precludes the formation of optimal plover habitat.

C. EFFECT OF THE TAKE

The level of take anticipated, as described above, from the proposed action is not likely to result in jeopardy to the piping plover.

D. REASONABLE AND PRUDENT MEASURES AND TERMS AND CONDITIONS

To be exempt from the take prohibitions of Section 9 of the ESA, the Corps must implement all pertinent Reasonable and Prudent Measures and Terms and Conditions, as stipulated in the Service's 2002 PBO, to minimize the impact of anticipated incidental take of piping plovers.

V. CONSERVATION RECOMMENDATIONS

A. LISTED SPECIES

Section 7(a)(1) of the ESA directs Federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of endangered and threatened species. The Service recommends the Corps carry out the following actions to further piping plover and seabeach amaranth recovery in addition to the existing Conservation Recommendations in the PBO, specifically Nos. 2 and 5.

The Service recommends sufficient grading to return the area to a condition that resembles the Corps' authorized beach profile - a flat, 100-foot-wide berm at an elevation of 10 feet above mean low water, with minimal vegetative cover.

As necessary, conduct a survey for the non-native Asiatic sand sedge and other exotic and non-native invasive species in project areas, to document the extent of invasion in the project area. Eradicate invasive vegetative species that are degrading or eliminating habitat for listed species.

B. BALD EAGLE

The bald eagle is protected by the Bald and Golden Eagle Protection Act (Eagle Act) (16 U.S.C. 668-668c) and the Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-712). The MBTA and the Eagle Act protect bald eagles from a variety of harmful actions and impacts. The Service developed the National Bald Eagle Management Guidelines (Guidelines) to advise landowners, land managers, and others who share public and private lands with bald eagles when and under what circumstances the protective provisions of the Eagle Act may apply to their activities. A variety of human activities can potentially interfere with bald eagles, affecting their ability to forage, nest, roost, breed, or raise young. The Guidelines are intended to help people minimize such impacts to bald eagles, particularly where they may constitute "disturbance," which is prohibited by the Eagle Act. Should bald eagles utilize the portion of the beach north of Shark Inlet, the Service recommends that the Corps follow to the National Bald Eagle Management Guidelines and contact the Service with any questions.

VI. REINITIATION -CLOSING STATEMENT

This concludes formal consultation on the effects of initial beach nourishment conducted by the Corps from Elberon to Loch Arbour. As provided in 50 CFR 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been maintained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or Critical Habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or Critical Habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

As a reminder, this consultation covers 2014-2015 Elberon to Loch Arbour beach nourishment events only and the potential impacts to federally listed species that may occur prior to any subsequent renourishment events. Subsequent renourishment or beach rehabilitation events will be considered separate Federal actions and will require individual consultations.

VII. REFERNCES

A. LITERATURE CITED

- Fraser, J. 2006. Piping plover nesting habitat characteristics with recommendations for artificial habitat creation on the Atlantic Coast. Virginia Tech, Department of Fisheries and Wildlife Sciences, Blacksburg, Virginia. 40 pp.
- Maslo, B., S. Handel, and T. Pover. 2011. Restoring beaches for Atlantic Coast piping plovers (*Charadrius melodus*): a classification and regression tree analysis of nest site selection. *Restoration Ecology*, Vol. 19, No. 201, pp. 194-203, March 2011.

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- U.S. Army Corps of Engineers. 2014. Atlantic coast of New Jersey, Sandy Hook to Barnegat Inlet Beach Erosion Control Project, Section 1 – Sea Bright to Ocean Township. Elberon to Loch Harbour Reach Draft Integrated Hurricane Sandy Limited Reevaluation Report and Environmental Assessment. U.S. Department of the Army, Corps of Engineers, New York District, New York, New York. 102 pp. Available at: http://www.nan.usace.army.mil/Portals/37/docs/civilworks/projects/nj/coast/SHtoBI/EtoLA/Main_Rpt_21_Feb_2014.pdf
- U.S. Fish and Wildlife Service. 1996. Piping plover (*Charadrius melodus*), Atlantic Coast population, revised recovery plan. U.S. Department of the Interior, Fish and Wildlife Service, Hadley, Massachusetts. 245 pp.
- U.S. Fish and Wildlife Service. 2002. Biological opinion of the effects of completion of sections I and II of the Atlantic Coast of New Jersey beach erosion control project Sea Bright to Manasquan, Monmouth County, New Jersey on the piping plover (*Charadrius melodus*) and seabeach amaranth (*Amaranth pumilus*). U.S. Department of the Interior, Fish and Wildlife Service, Pleasantville, New Jersey. 124 pp.
- U.S. Fish and Wildlife Service. 2013. Seabeach amaranth 2012 year-end report. U.S. Department of the Interior, Fish and Wildlife Service, Pleasantville, New Jersey. 12 pp.

B. PERSONAL COMMUNICATION

- Pover, T. 2014. Beach Nesting Bird Project Manager, Conserve Wildlife Foundation of New Jersey on behalf of New Jersey Division of Fish and Wildlife, Endangered and Nongame Species Program, Woodbine, New Jersey.
- Ruben, H. 2014. Project Biologist. U.S. Army Corps of Engineers, New York District, New York, New York.