Finding of No Significant Impact (FONSI)

I. NAME OF ACTION

Atlantic Coast of New Jersey, Sandy Hook to Barnegat Inlet Beach Erosion Control Project, Section I – Sea Bright to Ocean Township, New Jersey: Elberon to Loch Arbour Reach, Monmouth County, New Jersey.

II. DESCRIPTION OF ACTION

The Atlantic Coast of New Jersey, Sandy Hook to Barnegat Inlet Beach Erosion Control Project, Section I – Sea Bright to Ocean Township, New Jersey: Elberon to Loch Arbour reach is the final increment of a project initiated 17 years ago. The project area extends approximately 3.5 miles, beginning at Lake Takanessee in the City of Long Branch neighborhood of Elberon and ending near Deal Lake, in the Village of Loch Arbour, Monmouth County New Jersey. Construction is scheduled to begin in October 2014 and be completed in 2016. The features of the project include the following:

- A 100 ft wide berm at an elevation of +7.3 ft NAVD88 (+10 ft MLW) with a 2 ft high storm berm cap designed at elevation +9.3 ft NAVD88 (+12 ft MLW) to manage risk of overtopping and erosion. Slopes of the design profile include an onshore slope of 1V:10H from elevation +9.3 ft NAVD88 to -2.7 ft NAVD88 and an offshore slope of 1V:35H from elevation -2.7 ft NAVD88 to -25 ft NAVD88.
- Modifying three of the six larger stone groins to allow for longshore sediment transport and prevent sediment impoundment or scalloping.
- Placement of two feeder beaches to facilitate longshore sediment transfer past two of the remaining unmodified, unburied larger groins.
- Modification of 17 existing stormwater outfalls, ten of which will be extended and supported by wooden pilings and timber or composite material crib structures.
- A beach renourishment cycle of every 6 years for 32 years at an expected volume of 900,000 cy of sand per cycle.

Approximately 4,570,000 cy of material will be used to construct the proposed project. The material will come from the Sea Bright Borrow Area (SBBA) which is a 3-square mile area located 1-3 miles offshore of the southern end of Sandy Hook, NJ and has been used as a sand source for initial placement, scheduled re-nourishments, and emergency repairs for projects within the Sea Bright to Manasquan section of Sandy Hook to Barnegat Inlet Erosion Control Project since 1994.

III. ANTICIPATED ENVIROMENTAL IMPACTS

No long-term, significant adverse impacts are anticipated as a result of implementing the proposed plans.

Implementation of the proposed project would result in changed topography and elevation along the shoreline with the placement of fill, and will deepen the area of the SBBA from which the fill sand is removed. Construction of the project will create a significant change of view shed that will include a higher, wider berm and beach which will cover all but six of the pre-existing stone groins. Many of the short groins that will be buried are in various levels of disrepair. The six remaining longer groins extend into the near shore waters, three will be modifyed to allow

natural long shore drift of sand to help maintain and stabilize the beach. Feeder beaches will be constructed adjacent to two of the remaining longer groins to further facilitate longshore transport of sediments. The new view shed will also contain ten linear storm water drainage pipelines supported by pilings and cribbing. These pipelines will extent oceanward to the edge of the fill footprint in order to prevent infilling with sand and thus remain functional.

A temporary increase in turbidity is expected during construction as a result of the placement of fill. This turbidity plume will be highly localized due to the course nature of the fill sand and further minimized through the use of best management practices appropriate for this operation. No adverse impacts to water quality are anticipated from placement operations of this course material. Implementation of the selected plan may result in the temporary displacement of fish and mobile invertebrate species and terrestrial wildlife. Non sessile marine species and terrestrial species are expected relocate to undisturbed adjacent habitats during construction and will not be significantly affected.

Placement of sand will cause direct mortality to those marine organisms that cannot disperse to other areas. Most of the mortality will occur to various intertidal and near shore marine invertebrate species but may also include the eggs and other early life stages of some fish species which may be buried or otherwise adversely impacted by filling. These impacts cannot be avoided but are considered short term as the biota will generally recover in as little as 3 to 6 months but may take up to one year depending on the season of completion and the particular pre-existing species diversity. The area to be affected by placement operations consists of approximately 222 acres from mean high water seaward.

In the action component required prior to placement, 307 acres of ocean bottom will be affected by dredging at SBBA. Adult finfish are expected to avoid entrainment in the dredge however some mortality may occur but it will not constitute a significant impact to any species. There will be an analogous loss of benthic communities by the removal of sand via dredging. Again, this is coarse material as previously discussed, and no impacts to water quality are anticipated. The dredged areas will recover relatively quickly taking from 1 to 2.5 years also depending on the season when the dredging is occurring and the types of benthic communities affected. Because the SBBA is surrounded by similar bottom habitats regional in dimension, the temporary loss of the benthic communities themselves as well as the temporary loss of use of this habitat by other species will be compensated for by the availability of compatible, favorable habitat adjacent to the disturbed areas.

The project placement site and the SBBA are considered essential fish habitat (EFH) areas, supporting National Marine Fisheries Service (NMFS) designated EFH species appropriate to these geographic locations. The in water actions and their resulting impacts discussed in the above environmental impact sections are applicable to EFH habitat and related species concerns. No long term adverse affects on habitat or EFH species are anticipated from implementing the project.

Several different state and federally listed bird and plant species seasonally utilize beach habitats regionally north and south of the project site. However, there are no known occurrences of any of these species occurring at the project site, thus no adverse impacts to these protected species are anticipated.

Several species of state and federally protected whales and sea turtles may be seasonally present in or around the SBBA as well as the Atlantic sturgeon, which may be present year round.

Protection of these species will be upheld by implementation of recommended NMFS protocols and best management practices that will include on board observers, regulated dredging and transit speeds and the installation of the drag head deflector device to prevent entrainment. Execution of these measures will minimize any potential significant impacts to these listed species.

The existing eroded shoreline with its many exposed groins is a popular, productive recreational fishing and surfing area, due to the existing conditions. Implementation of the project plan is likely to reduce the utility of the project site for these activities, making it compatible in quality to adjacent (regional) areas.

The *Adonis/Rusland* archaeological complex, consisting of two wrecks the *Adonis*, a National Register of Historic Places (NRHP) shipwreck and the *Rusland*, not eligible for the NRHP but resting atop the *Adonis*, is within the near shore sand placement area. A Programmatic Agreement (PA) is being prepared which stipulates the continuation of a program to monitor the vessels in place through the MOA for the overall project signed in 1991. Buffer zones will be employed to protect any wrecks identified from dredging activities in the SBBA.

No adverse impacts are anticipated as a result of HTRW at the sites; furthermore there are no adverse impacts to surface water or ground water resources.

Heavy equipment used during construction may contribute to a temporary increase in noise levels; however noise levels would not increase beyond those cited in local ordinances.

These temporary impacts would ultimately lead to positive long term improvements. Project related benefits include protection of property and infrastructure, greatly increased opportunities for passive recreation, aesthetic, scenic resources and educational opportunities. The restored berm may also offer suitable nesting habitat to several species of listed birds as well as offer expanded stop over habitat to migrating shorebirds

IV. CONCLUSIONS

Given that there are no anticipated long-term, adverse impacts associated with the implementation of the recommended plan, a Finding of No Significant Impact (FONSI) has been determined for this action. Furthermore, as the recommenced plan would have no negative impacts on the quality of the environment, an Environmental Impact Statement in not required.

Date: 30 JULY 2014

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Commander