Appendix 4

Previous Coastal Zone Consistency

(North Myrtle Beach and Garden City/Surfside Beach)

(Sent Via Electronic Mail)

June 13, 2017

Lt. Colonel Matthew W. Luzzatto
District Engineer
United States Army Corps of Engineers
69A Hagood Avenue
Charleston, S. C. 29403

Attn: Jesse Helton

Re: Federal Consistency Review for USACE Myrtle Beach Reach 1 (CZC-17-0274) and Supplemental Coordination for Reach 3 Garden City/Surfside Beach Coastal Storm Damage Reduction Project (CZC-16-0678)

Dear Lt. Colonel Luzzatto:

Thank you for coordinating with South Carolina's Department of Health and Environmental Control, Ocean and Coastal Resources Management (SCDHEC OCRM) on the Coastal Storm Damage Reduction Projects for the Myrtle Beach Reach 1 Renourishment (CZC-17-0274) and for the supplemental coordination on Reach 3 Garden City/Surfside Beach Renourishment (CZC-16-0678), pursuant to 15 C.F.R. § 930 Subpart C, Federal Consistency regulations associated with the Coastal Zone Management Act of 1972 (CZMA) as amended. Under the CZMA, federal activities which may have reasonably likely effects on any land or water use or natural resource of the coastal zone, regardless of the location, must be consistent to the maximum extent practicable with the enforceable policies of the State's federally-approved Coastal Zone Management Program.

The SCDHEC OCRM is in receipt of the consistency determination from the US Army Corps of Engineers (USACE) dated March 17, 2017, and received electronically on March 17, 2016 for the Coastal Storm Damage Reduction Myrtle Beach Reach 1 project as well as partial supplemental coordination materials for the Reach 3 beach renourishment for Garden City/Surfside Beach, Horry and Georgetown Counties, South Carolina. Accompanying the determination and as a part of the supplemental coordination were electronic links to the supporting materials contained in the Draft Supplemental Environmental Assessment (Draft EA), dated March 2017 and Final EA dated August 2016. At the time of the draft EA, both projects were expected to be conducted simultaneously from July 2017 to June 2018. Since that time, communication between the agencies suggest that two dredges may be operating simultaneously and the window of time will be approximately 3 months and beginning as soon as July 2017.

On May 15, 2017, SCDHEC OCRM notified the US Army Corps of Engineers of the need to extend the 60 day review period, elapsing on May 16th for an additional 15 days pursuant to 15 C.F.R. § 930.41(b). The period was further extended to June 13th, by mutual agreements by the Corps and SCDHEC OCRM. The purpose of the extension beyond May 16th was to allow additional time for

adequate coordination between the resources agencies, since discussions were ongoing with SCDHEC OCRM, USFWS and NMFS to minimize impacts to coastal resources.

The provision for supplemental coordination pursuant to 15 C.F.R. § 930.46 was required because the State determined that the project at Reach 3 will affect coastal uses and resources substantially different than originally described primarily due to the changes in project timing, from winter to summer and with a significantly increased risk to marine turtles and the benthic aquatic environment as well as potential impacts to public beach access during summer months.

Though the Corps may consider this response a ***conditional concurrence*** that the project is consistent to the maximum extent practicable with the enforceable policies of the South Carolina Coastal Zone Management Program pursuant to 15 C.F.R. § 930.4., SCDHEC OCRM echoes the other resource agencies with concerns about the potentially precedent setting nature of allowing projects such as these to occur during warmer months of high biological activity. While OCRM understands the fiscal constraints and the nature of the project urgency due in part to impacts from Hurricane Matthew and has always worked cooperatively with the Charleston District, the conditional concurrence at this time will not bind the OCRM in the future to concur that beach nourishment projects that are proposed to be conducted outside of winter months are consistent to the maximum extent practicable.

Please also note that supplemental coordination provisions pursuant to 15 C.F.R. § 930.46 remain in effect and will be required for Reach 1 or Reach 3 if it is found before the projects have begun that the project(s) will affect any coastal use or resource substantially different than originally described. Substantially different effects are reasonably foreseeable if the Corps makes substantial changes to the project or if there are new circumstances or information relevant to the SCCZMP's enforceable policies. As examples, but not fully exhaustive, the State of South Carolina regards changes in the time of year, borrow site, placement area, sediment characteristics, or a significant change in the amount of material dredged as substantial changes to the project. If there are future modifications to the project which affect any coastal use or resource substantially different from those reviewed by the SCCZMP, a consistency determination shall be submitted to the SCCZMP pursuant to 15 C.F.R. § 930.31(e).

Project Summary:

The Coastal Storm Damage Reduction beach renourishment project include sand placement, construction of a protective storm berm and an advanced nourishment construction berm in portions of the Myrtle Beach 25.3 mile reach. The protective storm berm reduces damage expected to occur during storm events. The advanced nourishment berm acts as a buffer for the protective storm berm against long term erosional forces. The projects will be constructed with hopper dredges, booster pumps, and land-based heavy equipment (i.e. bulldozers and front-end loaders). Sand fencing will be placed along the landward edge of the nourishment fill to promote dune growth. Native vegetation will be planted to further expedite dune formation and stabilization, as well as creating beach dune habitat. Fencing will be installed according to sea turtle friendly design standards. The planting matrix will consist of the following plants: bitter panicum (Panicum amarum "Northpa"), sea oats (Uniola paniculata), seashore elder (Iva imbricate), and saltmeadow cordgrass (Spartina patens). Sweet grass (Muhlenbergia "filipes") will be planted on the toe of the backside of the dune system. The plants will be spaced two feet on center, and rows will be spaced at two to four feet depending on which plant species is in the row. Fertilizer will be placed in the hole at the time of planting.

Reach 1 North Myrtle Beach Project Specifics:

The currently proposed project at North Myrtle Beach (Reach 1) consists of approximately 362,000 cubic yards of sand placement and dune construction from Hog Inlet to approximately 48th Avenue South. The length of Reach 1 is approximately 45,500 linear feet or 8.6 linear miles of shoreline. The length of the dune and beachfill for the proposed renourishment is approximately 3.3 miles, which does not include the entirety of Reach 1. The 3.3 miles that will be renourished represent 3 hotspots within the project that have suffered extreme damage. The borrow area for Reach 1 was identified in the March 1993 General Design Memorandum for the project as the Little River borrow area and falls within the 3 mile territorial sea, approximately 1.7 miles southeast of the town of North Myrtle Beach, and 2.0 miles southwest of Little River Inlet. Portions of it have been used in the past for the 1998 and 2007/2008 nourishment projects, and will be used for the next beach fill placement.

Reach 3 Garden City/Surfside Project Specifics:

The updated project at Reach 3, consists of up to 1M cubic yards sand placement and dune construction from the most southern portion of Myrtle Beach State Park southward along Surfside Beach along the shoreline for 40,656 feet to approximately 2 miles north of Murrell's Inlet in Garden City. It will coincide with the northern limits of the beneficial use sand placement from the dredging of Murrell's Inlet (CZC-16-0961) which was recently completed. The borrow area for Reach 3 was identified in the March 1993 General Design Memorandum for the project as the Surfside Borrow Area. Portions of it have been used in the past for the 1998 and 2007/2008 nourishment projects. The area extends from two to five miles offshore and comprises approximately six square miles. All sand will actually come from the Outer Continental Shelf (OCS) portions of the identified borrow area beyond the limit of the territorial sea; BOEM leases are in place for this material.

SCCZMP Networked Agency Comment Summary in response to Supplemental Draft EA:

South Carolina Department of Natural Resources, July 7, 2016 and April 17, 2017 to USACE:

(1) Method of Dredging and Project Timing

While the use of a hopper dredge is generally preferred from a benthic impact/recovery standpoint, there is a concern regarding the use of this dredging method during warmer months when migrating and/or nesting sea turtles are present. Loggerheads (threatened) and Leatherbacks (endangered) are known to be abundant in the waters off of Horry and Georgetown counties April – November. Sea turtles are known to be vulnerable to entrainment and death in areas of hopper dredge use. To avoid mortality of sea turtles, DNR strongly recommends that the use of the hopper dredge be prohibited after March 31 or when water temperatures exceed 62.6 F / 17C. The project shoreline is also used by nesting sea turtles. There is potential for interference with nesting activities resulting from sand placement and the use of heavy machinery on the beach as severe compaction can result. Restriction of nourishment activities during nesting season, May 1 – October 31 should be given strong consideration. Regardless of timing, all renourished beaches should be monitored for compaction following renourishment and when necessary appropriate measures such a tilling be implemented.

All conservation measures outlined in the revised Biological Opinion resulting from Section 7 consultation with USFWS should be incorporated into the Final EA.

(2) Recommended Project Monitoring

To gain a better understanding of potential impacts to fish and sea turtles resulting from dredging activities in offshore borrow sites and to avoid and minimize impacts to hard bottom resources, DNR recommends the following monitoring efforts:

(a) Study of borrow area and surrounding areas prior to, during and 1 to 1.5 years after dredging to include an acoustic telemetry study of the areas in and outside of the borrow location. Currently the receivers in SC waters have captured almost 700 individual organisms from 26 different species. This is a large enough set of organisms with transmitters to gather information regarding fish and turtle usage in borrow areas. This array of receivers should also be paired with a limited benthic community study to assess prey base in the sediment.

(b) Bottom mapping effort to assess and identify hard bottom habitats and sand resources within and surrounding the proposed borrow area. Dredging operations should target areas of compatible sand with adequate thickness and avoid direct impacts to hard bottom habitats. This monitoring effort would result in a better understanding of the potential changes to hard bottom areas following dredging and could assist in the development of a sand budget for the area.

SCDHEC OCRM Decision, SCCZMP Enforceable Policies and Conditions:

Pursuant to 15 C.F.R. § 930.4, SCDHEC ***conditionally concurs*** with the determination that the project is consistent to the maximum extent practicable with the following conditions below.

Applicable Enforceable Policies of the SCCZMP: (1) Wildlife and Fisheries Management; (2) Dredging; (3) Erosion Control; (4) Geographic Areas of Particular Concern; (5) Beach and Shoreline Access; (6) S.C. Code Ann. § 48-39-20; (7) S.C. Code Ann. § 48-39-30; (8) S.C. Code Ann. § 48-39-80; (9) S.C. Code Ann § 48-39-150, (10) S.C. Ann. Regs 30-12(G); (11) S.C. Ann. Regs 30-13(L)); and (12) S.C. Ann. Regs 30-13(N)(2)

(A) Wildlife and Fisheries Resources:

1. All precautionary measures will be taken to protect State-listed aquatic and terrestrial migratory and spawning species and habitats of concern.

2. Results of monitoring efforts to gain a better understanding of the project impacts to fish, sea turtles, benthic aquatics, and other organisms as well as information regarding sediment budgets/transport in both borrow areas shall be submitted to OCRM.

3. Appropriate measures will be taken to protect the integrity of roosting, feeding, and beach-nesting birds of State concern, with particular emphasis, but not limited to Piping Plovers, Wilsons Plovers and Red Knots during the course of the project and while conducting post-construction practices on the beach and dune system regarding compaction testing and tilling, escarpment remediation, and sand fencing/establishment of vegetation.

(B) Dredged Material and Spoil Disposal:

4. Prior to construction or maintenance, the USACE must provide a written report to OCRM that specifies quality control measures including:
   (a) A description of the means and limits by which the material quality will be assessed during and after construction;
   (b) A definition of material quality that would require removal or screening of material from the beach; and,
   (c) A reasonable timetable for removal of the material and restoration.

5. Dredging operations shall target areas of compatible sand with adequate thickness and minimize and/or avoid direct impacts to hard bottom habitats. All buffers as recommended to protect EFH and hard bottom areas will be in force and effect.

6. The beach compatibility and quality of the material placed upon the beach must be monitored during construction operations by persons who are qualified to assess the material. Monitors will report immediately to those persons with the authority to suspend or modify the work if a determination is made that unsuitable material is being placed on the beach.

7. An assessment of fill material is recommended to be conducted within 30 days of project completion with at least 10 random samples taken and analyzed for sand grain size distribution, percent of shell composition and color. Any report detailing results of the analysis shall be submitted to the natural resource agencies within 45 days of construction.

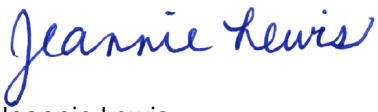
8. The sand fencing shall be installed consistent with the South Carolina Critical Area Permitting Regulations in R.30-13 L (1) (a-h).

Pursuant to 15 C.F.R. § 930.4, if the USACE does not agree to the above conditions, then all parties shall treat this conditional concurrence letter as an objection.

The SCDHEC concurrence relies on the following policies contained within SCCZMP: Wildlife and Fisheries Management; Dredging (*Dredging and Spoil Disposal*); Erosion Control (*General Erosion Control, Artificial Beach Nourishment*), the policies associated with Activities in Areas of Special Resource Significance (Barrier Islands, Dune Areas); Beach and Shoreline Access; Geographic Areas of Particular Concern (GAPC)and the priority of uses associated with GAPC's in addition to S.C. Annotated Code § 48-39-10 et seq and S.C. Regulations R 30-1 *et seq*.

Please contact me if you have any questions about this concurrence or the conditions within it. It is our intention to work with the Charleston District to address any concerns that the USACE may have as to how this project can be consistent with the enforceable policies of the SCCZMP.

Sincerely,



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