



June 16, 2011

Weekly Meeting Memo CSE-05

MEMO

TO: Cliff Ogburn, Town of Nags Head, NC

FROM: Haiqing L. Kaczowski (PE) and Tim W. Kana (PG)

RE: Nags Head Beach Nourishment Project (CSE 2203)
Weekly Project Meeting of the Town, the Contractor, and the Engineer

The weekly project meeting of the Town of Nags Head, the Contractor (Great Lakes Dredge & Dock, referred to as GLDD) and the Engineer (Coastal Science & Engineering, referred to as CSE) was held from 9:00 a.m. to 9:50 a.m. on Thursday, 16 June 2011, at the Town Hall. Items discussed during the meeting are summarized herein.

1) GLDD's Production Updates

The Liberty Island was pumping at station 770+00 at the morning of the meeting. She has finished 106 loads with a reported volume of 497,067 cubic yards of sand by midnight on June 16th, 2011. As reported in last week's meeting, the Liberty Island encountered some mechanical problems and transited to a dock for repairs last Tuesday morning, June 7th. She returned to the site on Monday morning the 14th at 4 am. After pumping 3 loads after her return, she was down again and needed repairs. The repairs were completed rapidly and the Liberty Island resumed normal productivity from late Tuesday evening. She has been pumping efficiently since then. She finished 8 loads on Wednesday, June 15th with a reported volume of over 34,000 cubic yards. She has passed the 100 loads milestone and is fast approaching the half million cubic yards milestone.

The Liberty Island is proceeding southward towards Jennett's Pier and will be pumping under the Pier tomorrow, June 17th. She will continue in that direction for another 200 feet past the pier, and then will switch to the second submerged pipe landing point at station 825+00. From that



station she will pump sand northward up to the finished section near station 779+00. Next she will turn and proceed southward to meet the Texas at the Outer Banks Pier near station 875+00.

GLDD expressed concern about the disturbance associated with the equipment transfer to the new landing point. GLDD was advised by town officials to move pipes Saturday or Sunday morning to the extent practicable since this is the time when the majority of rental changes occur.

The Texas's tentative arrival date has been changed to June 21st. The location of her submerged pipeline and her work schedule remain the same.

2) Revised Fill Templates

In reviewing GLDD completed sections, CSE observed the present beach condition is different from CSE's design condition of November 2010. CSE's recent survey of the project area confirmed a build-up of the dry beach between November 2010 and May 2011. It was also observed that the sand dredged from Borrow Area #2 is settling at a steeper than expected slope along the seaward edge of the fill. Accordingly, CSE has revised the fill templates so as to obtain the maximum permit volume of 4.6 million cubic yards within the permit limits shown on the project plans. CSE provided revised plans for the sections that the Liberty Island and the Texas will be working on during the next few weeks. CSE will finish the revisions for the remainder of the sections and will provide new templates as construction progresses. Such revisions will comply with the impact areas approved by the state and federal permits.

3) Fill Template Adjustments

After a new berm and profile are placed on the beach, both will commence to evolve toward their respective equilibria due to wave action. This movement of sediment, while decreasing the width of the initial placed berm, is not erosion. Rather it indicates that the project is performing as designed, and after the initial profile adjustment, the new beach will erode and accrete at normal rates from season to season.

People may also notice that the sand will be spreading out along the beach. This is natural. The main reason why construction began from the middle part of the project is that if there are any "spreading out losses", these will remain within the project area.



CSE will work with the Town to draft a statement which will explain what people should expect after a beach nourishment.

4) GLDD's Payment Application #1

GLDD submitted their first payment application on June 6th. CSE has reviewed their application and sent the Town a letter on June 16th recommending payment.

5) Dredging Quality Management (DQM) Report from the USACE

A DQM report from the USACE Mobile District Operation Division was received on June 15th for the period of June 8th to 14th. No new issues were mentioned in this report.

6) Non-Capture Trawling Updates

Non-capture trawling is going well. Clearnose skates, rays and crabs have been documented, however, no turtles have been sighted at the surface during the past week.

7) Turtle Monitoring on the Beach

CSE received an email from N.C. Wildlife Resources Commission (NCWRC) requesting additional turtle monitors when the Liberty Island and the Texas work in distant sections of beach. CSE has coordinated with NEST representatives and they will arrange to add monitors when the two dredges are more than ~two miles apart.

8) Sandbag Issues

In accordance with GLDD's schedule, NCDOT officials will continue to place CAMA stakes along the toe lines of sandbags that are subject to removal. CAMA stakes will be placed near Surfside Drive before the Texas starts pumping there.

9) Ocean Outfall Extensions in Reach 1 of the project

The NCDOT has finished the design for the four ocean outfalls within or adjacent to the project site. The Town will extend the three outfalls that are located at Reach 1 of the project area, but will not extend the outfall at National Park Service at this time. The sequence of extension construction will be as follows:



First — Conch Street (station 554+60)

Second — Sound Side Road (station 580+85)

Third — Curlew Street (station 531+40)

GLDD will fill the outfall sections in accordance with the design templates and will mark azimuth of outfalls at its seaward end via standing berm range stakes. The Town will hire another contractor to extend and renovate the outfalls immediately after the sand placement is completed at each section. The contractor will be responsible for arranging pre- and post- construction profile surveys. CSE will assist in coordinating the work as requested by the Town.

Construction of outfall extensions is expected to require about one week at an individual outfall. The beach will be closed only around the construction sites.

A pre-bid meeting will be held at the Town (c/o Director of Public Works) in about two weeks, and representatives of CSE and GLDD will attend to answer questions related to the beach nourishment project.

10) Mean High Water (MHW) Survey Deliverables

CSE received three hard copies of official signed MHW maps from Quible & Associates on June 13th. One original signed map and two scanned copies were provided to NCDCM representatives (c/o John Cece) after this meeting.

11) National Park Services — Coastal Engineering Inventory Project

A representative from the National Park Service informed the attendees that research on a coastal engineering inventory project is underway and needs the input from this project. They are interested in the monitoring technology used on this project. CSE will coordinate with them and will provide relevant data and information as requested.

12) Anticipated events and schedule for next week

*Thursday, June 23th, at 9 a.m. — Weekly project meeting at Fire Station 16
(The Town, the Contractor, and the Engineer are expected to attend.)*

Enclosure: List of attendees and their contact information