



June 2, 2011

Weekly Meeting Memo CSE-03

MEMO

TO: Cliff Ogburn, Town of Nags Head, NC

FROM: Haiqing L. Kaczkowski (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 9:10 a.m. to 10:10 a.m. on Thursday, 2 June 2011, at the Town Hall. Items discussed during the meeting are summarized herein.

1) GLDD's Production Updates

Pumping has been efficient since it started on May 24th. As of midnight on June 1st, the Liberty Island had finished 54 loads with a reported volume of 253,572 cubic yards. After nourishing ~3,500 ft of beach from the landing at station 738+00 north to station 694+00, the pipeline elbow was flipped on May 31st and Liberty Island began pumping sand southward from station 728+00. Liberty Island will work in this direction for another week until reaching station 760+00, which is ~1,700 ft north of Jennett's Pier. Her next landing point will be at station 794+00. Submerged pipeline has been prepared at that station and will be completed soon. Pumping will start from that point in about a week and placement will be directed northward at first.

GLDD has re-opened the completed sections to the public and will conduct final grading on these areas once the necessary equipment is in place. NCDCM representatives reiterated that dressing of the completed sections should be performed within a day or so of reopening as the project progresses.



Based on the revised schedule provided by GLDD dated on June 1st, the Texas will arrive on site on Friday, June 10th, and will begin pumping sand at station 960+00 on Sunday, the 12th.

2) Before Dredging (BD) Survey and After Dredging (AD) Survey

BD and AD survey data has been taken every day. AD survey data shows that GLDD has completed the design template to the design berm width. However, due to the natural accretion that occurred between the design condition of November 2010 and construction, and also due to the fact that the average fill slope is running steeper than the design slope of 1 on 17, the first finished 3,000 ft section was underfilled by 20 to 35 percent of the design volume. The GLDD engineering team decided to break the pipeline on May 31st at station 719+00 and re-pump two loads of sand onto the 400 ft of beach up to station 715+00. AD survey data shows that this section now contains about 90 to 100 percent of the design volume after this re-pumping.

CSE has been collecting BD and AD survey data as well. CSE will compare the survey results with GLDD's work and verify these finished volume estimates. CSE will revise the fill templates for the rest of the project area based on the present beach condition and provide GLDD with new berm widths and new slopes for construction guidance.

Although GLDD reported that the borrowed sand is running heavy and, therefore, is not filling the slope in some sections. The borrowed sand is good quality with negligible mud content. It is apparent that the new beach is merging well with the existing beach.

3) Sandbag Issues

Officials from the Division of Coastal Management of North Carolina (NCDCM) discussed the sandbag removal issue with the attendees. Letters from the NCDCM office were sent to the relevant property owners on May 16th. These letters required them to remove sandbags within 30 days if the sandbags are not covered with sand and stable vegetation. As of the day of this meeting, some sandbags have been removed but the majority of sandbags still remain. NCDCM officials will place Coastal Area Management (CAMA) stakes along the toe lines of sandbags that are subject to removal as the construction progresses. These stakes will serve as guidelines in that no sand shall be placed landward of these stakes. GLDD shall slope the berm down toward



the sandbags in such a way that no sand will slide onto the sandbags during and immediately after the construction.

NCDCM officials reiterated that no sand shall be placed under houses in accordance with the permits for this project, and no nourished sand shall be used by property owners or pushed under the houses. However, property owners may bring in sand from an outside source and place it under the houses and/or landward of their houses. If such action is desired, the property owners must acquire a CAMA permit beforehand. Officials also brought to the property owners' attention that no such permit can be issued for properties with illegal sandbags still in place.

NCDCM officials planned to place stakes right after the meeting at those sections where the Liberty Island will be working in a couple of days. The Comfort Inn will most likely be the first property with a sandbag issue that GLDD will encounter according to the present pumping schedule. Officials will be on site to give directions at that time.

4) Easement Updates

The Superior Court has ruled in favor of the Town in a lawsuit filed by 44 property owners challenging the Town's process for obtaining easements for this project. The number of un-acquired easements has been further reduced to about fourteen. All easements for those sections to be constructed by the Liberty Island and the Texas are already in place. The Town will continue to work on acquiring the remaining easements.

5) Turtle Monitoring on Beach and Non-Capture Trawling at Borrow Areas

Turtle monitoring on the beach has been conducted daily from dusk to dawn in accordance with the scope of work. Monitors reported no turtle activity within the project area.

Non-capture trawling at borrow areas reported that all inflow screening is in good condition and highly effective. A few clear-nose skates and crabs have been documented, and the first sea turtle was observed on May 29th in the water column around Borrow Area #2.

6) USACE Permit Modification regarding Draghead Deflector



A permit modification has been issued by the USACE Washington Office on 31 May 2011. The modification clarifies the type of rigid draghead deflector that is required for hopper dredges operating in the project area. CSE sent a letter on June 1st to confirm receipt of this modification. The CSE letter confirms that the deflector heads on the Liberty Island were modified within 48 hours of the directives given by the USACE Washington Office, the SAW inspector, and NMFS. This modification on the Liberty Island is consistent with the additional permit conditions given in the USACE May 31st letter.

7) Sediment Characteristics

Sediment samples have been collected by CSE at the finished sections. Sediment characteristics (including grain-size distributions, size-class percentages and shell content) were analyzed. Results show that the sand pumped on the beach contains very little mud and few shells. It is compatible, clean, and free of debris and clay. Predominant mean grain size is classified as medium sand (0.25-0.5 mm diameter).

Sediment analysis plots have been sent and will continue to be sent to NCDCM on a weekly basis while the project progresses.

8) Escarpment Maintenance

According to the permits, all escarpments in the newly placed beach fill that exceed 18 inches in height shall be graded to match adjacent beach contours immediately after the completion of each project phase. The Town will be required to conduct escarpment maintenance for a period of three years after the completion of the project.

9) Anticipated events and schedule for next week

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

Enclosure: List of attendees and their contact information