Dredging Inspection Field Report

Site Observations

Date: 5/11/2021 Field Engineer: Mike Triano

Weather Conditions: Partly Sunny Temperature: 80s

Wood Project Number: 2402210005.01.01 Client: Isle of Palms

Contractor: Branch Diversidied (BDI) Foreman Onsite: Angel Guzman

Item	Observations	Photo
Crew Size	Two 20' wide barges dredging at time of inspection. Two tugs to move the barges back and forth. One 26' Thruster Barge One ~ 50' X 100'+ Hopper barge staged in intracoastal east of mooring canals used to transport material to DMMA. Angel's ~20' aluminum boat One 30' x 80' barge placed in vicinity of Station 18 in Baseline 1 – N Canals. Barges will offload here to avoid trip to intracoastal. – This barge was not located in this position at the time of the inspection.	Photo: 1
Location of Crew	20' Wide barge located: Staged in Intracoastal, at Idle 20' Wide barge located: Staged in Intracoastal, at Idle 26' Wide Thruster barge: Staged in Intracoastal, at Idle One ~ 50' X 100'+ Hopper barge staged in intracoastal east of mooring canals Angel's ~20' aluminum boat roams throughout	Photo: 1 See Map
Equipment on Site	Same as Crew size, 4 mechanical dredges (excavators), and the inactive 26' Thruster Barge	Photos:
Work Completed	S Baseline 1 to ~ Station 31 N Baseline 1 to terminus Mooring Canals Portions of N Baseline 2, 3, & 5 Mooring Canals are currently where all the barges are actively dredging. BDI indicated that Mooring canals should be completed, and a second Arc Survey should be conducted by the end of the week. BDI indicated that Baseline 3 will be the next canal completed to grade. BDI indicated that Baseline 5 has an input of material, likely to be from the rip rap along Beach BLVD, which is filling in the dredged portions of the canals. BDI advised dredging occurs in two phases: on the way in for access & removal of top layer of sediment and on the way out for getting canal to	See Map

	specified grade. This is true for all canals that barges cannot initially access.	
Work Underway	Final cleanup of Mooring Canals. The dredging of Baseline 2, 3, & 5 will resume after Mooring Canals are completed. Likely by the end of the week.	See Map
Materials on Site	Stored in 100'+ long X 50' wide Hopper barge in Intracoastal. Angel advised that trips to the DMMA are taken once these large barges are full, but that usually occurs once a day. One 30' x 80' barge placed in vicinity of Station 18 in Baseline 1 – N Canals. Barges will offload here to avoid trip to intracoastal. – This barge was not located in this position at the time of the inspection.	Photo: 1
Manatee Observer	All crew on barges were advised to keep eye out for Manatees - signs posted on northern and southern canals.	Photos: 6
Turbidity Monitoring	0800 reading was 6.47 NTU 1200 reading was 6.25 NTU Angel advised new, cable barrier was implemented Barrier was open at the time of the inspection.	Photos: 7 & 8
Dewatering	Lance advised dewatering does not occur - drain holes are located in bottom of containers. Lance advised inner canals are mixing zones and therefore sediment/water returning to canals are not of concern.	N/A
Dredging	Mechanical	
Offloading Location	Large ~80 -100+ foot storage barge located in the Intracoastal Angel advised that there are several barges of this size, and larger that are interchanged once full. Angel advised that trips to the DMMA are taken once these large barges are full, but that usually occurs once a day. 30' x 80' barge located at Station 18, Baseline 1. Angel advised that the offloading of this barge varies, but at least off-loads once a day. – This barge was not located in this position at the time of the inspection.	Photo: 1
Posted Permit	Permits are not posted. Copies are kept on Angel's boat while dredging operations are taking place.	
Other…	See Additional Comments Below	

Additional Notes

Projected Schedule:

- Finishing of Mooring Canals, BDI indicated this should take place either by the end of today or tomorrow morning.
- Resuming Baselines 2, 3, & 5. BDI indicated that Baseline 3 will be the next canal completed.

Anticipated Obstacles to Meeting Schedule:

- Equipment malfunctioning: at the time of the inspection, one dredge was out of commission – mechanic on-site actively working on it.
- Under utilization of barges – All barges were at idle while waiting on the tide due to spuds not being long enough to stabilize the barge at high tide.
- The very end of Baseline 3 will have to be finished at a later time, current dredges do not have a long enough boom to reach past the two docks at the end of the canal.
- The input of material in Baseline 5 – BDI indicated that material keeps filling in the dredged location at the terminus of the canal (near Beach BLVD). BDI indicated that the likely reason for this is material within the rip-rap flowing out into the dredged portions.
- Warmer weather increasing Manatee Traffic

Engineer's Notes:

- Barge placement – will start reporting where barges are located at the time of the inspection for simplicity and difference in projected and actual locations of dredging.
- BDI indicated that there was an accident last week involving the 26' Thruster, and one of the 20' wide barges. BDI indicated that both barges made contact with several docks and several boats. See map and photos below (7 & 8) of observable damage at the time of the inspection.

Field Engineer Signature: 

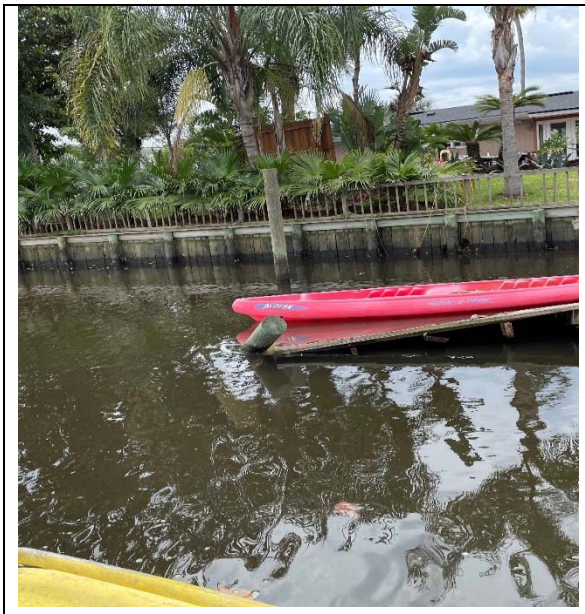
Date: 5/11/2021

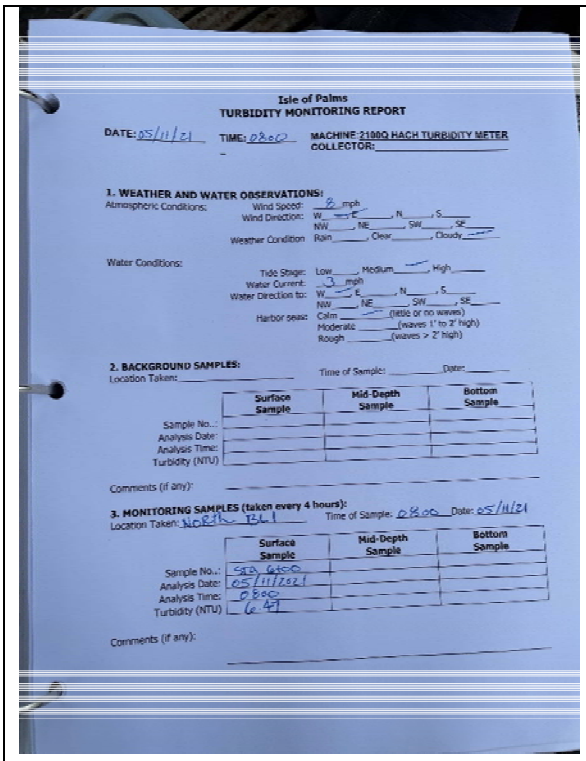
Maps: Red is completed Work Blue is Work to be completed

Photograph Log:

	**Photo 1:** Barges at idle, moored to large hopper barge in intracoastal.
	**Photo 2:** Photo towards Mooring canals where barges will resume dredging at low tide today, May 11, 2021.

	**Photo 3:** Damaged dock at the end of Baseline 1.
	**Photo 4:** Damaged boat within Baseline 3.

	**Photo 5:** Damaged dock within Baseline 3.
	**Photo 6:** New turbidity barrier and manatee signs.

 Isle of Palms TURBIDITY MONITORING REPORT DATE: 05/11/21 TIME: 0800 MACHINE: 2100Q HACH TURBIDITY METER COLLECTOR: 1. WEATHER AND WATER OBSERVATIONS: Atmospheric Conditions: Wind Speed: 8 mph Wind Direction: W, E, N, S, NW, NE, SW, SE Weather Condition: Rain, Clear, Cloudy Water Conditions: Tide Stage: Low, Medium, High Water Current: 3 mph Water Direction to: W, E, N, S, NW, NE, SW, SE Harbor seas: Calm (little or no waves), Moderate (waves 1' to 2' high), Rough (waves > 2' high) 2. BACKGROUND SAMPLES: Location Taken: Time of Sample: Date: Surface Sample / Mid-Depth Sample / Bottom Sample Sample No.: Analysis Date: Analysis Time: Turbidity (NTU) Comments (if any): 3. MONITORING SAMPLES (taken every 4 hours): Location Taken: North Bkl Time of Sample: 0800 Date: 05/11/21 Surface Sample / Mid-Depth Sample / Bottom Sample Sample No.: SIB 0800 Analysis Date: 05/11/2021 Analysis Time: 0800 Turbidity (NTU): 6.47 Comments (if any):	**Photo 7:** 0800 turbidity reading of 6.47 NTU.
 HACH 2100Q 6.25 NTU	**Photo 8:** 1200 turbidity reading taken at the time of the inspection. Reading of 6.25 NTU.