

## Dredging Inspection Field Report

### Site Observations

Date: 9/22/2021 Field Engineer: Mike Triano  
 Weather Conditions: Breezy, Overcast Temperature: 80s  
 Wood Project Number: 2402210005.01.01 Client: Isle of Palms  
 Contractor: Branch Diversified (BDI) Foreman Onsite: Brett Tucker

Item	Observations	Photo
<b>Crew Size &amp; Location</b>	<p><b>**All Barges are located in the Southern Canals**</b></p> <p>30' x 80' barge, moored off to the large ~ 50' X 100' + Hopper barge in the intracoastal. The 30' X 80' Barge is used to unload the smaller barges. The ~ 50' X 100' + Hopper barge is used to transport material to DMMA. Both Barges are located east of Baseline 1 in the Intracoastal: Southern IOP.</p> <p>One 20' Wide push barge actively dredging Baseline 4          One 20' Wide push barge actively dredging Baseline 2          26' Thruster Barge actively dredging baseline 1          Two Tugs pushing 20' Wide barges back and forth from Baseline 1 and 2.          One large tug moving large Hopper barges to the DMMA          One additional 30' X 80' "MD-80" Barge utilized to off-load smaller barges staged near the mouth of Baseline 1 in the intracoastal.          20' aluminum boat used to travel to and from the site.</p>	<p>Photo: 1, 2, 3, &amp; 8</p> <p>See Map</p>
<b>Equipment on Site</b>	Same as Crew size, 3 mechanical dredges (excavators)	Photos: 1, 2, 3, 5, 7 & 7
<b>Work Completed</b>	<p>Majority of Northern IOP Canals. *</p> <p>Portions of Baseline 1, 2, 4 and 5 Southern IOP Canals</p> <p><u>BDI advised dredging occurs in two phases: on the way in for access &amp; removal of top layer of sediment and on the way out for getting canal to specified grade. This is true for all canals that barges cannot initially access.</u></p>	See Map
<b>Work Underway</b>	Actively Dredging Baseline 1, 2 & 4 South IOP.	See Map
<b>Materials on Site</b>	Stored in ~100' + X 50' Hopper barge and One 30' x 80' barge "MD-80". Both barges are moored in the intracoastal. East of Baseline 1: South IOP.	Photo: 5 & 7
<b>Manatee Observer</b>	All crew on barges were advised to keep eye out for Manatees - signs posted on northern and southern canals.	Photos: 4
<b>Turbidity Monitoring</b>	<p>Background Reading: 12.5 NTU</p> <p>Monitoring Samples were not collected. Advised monitoring samples need to be collected every 4 hours.</p>	Photos: 6

<b>Dewatering</b>	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.	
<b>Dredging</b>	Mechanical	
<b>Offloading Location</b>	Large ~50' -100'+ Hopper barge and 30' X 80' "MD-80" Barge – east of Baseline 1: Southern IOP.  Angel advised that trips to Reed Island DMMA are taken once these large barges are full, that usually occurs once a day.	Photo: 5 & 7
<b>Posted Permit</b>	Permits are not posted. BDI was provided with additional copies.	
<b>Other...</b>	See Additional Comments Below	

\*BDI will return to Canals to clean up survey identified high spots

## Additional Notes

### Projected Schedule:

- Brett Tucker indicated that Baselines 1, 2, 3, 4, and 5 in the southern IOP canals will be focus for the next month.
- Brett Tucker indicated that all barges are encouraged to produce 5 to 6 loads per day, putting the tentative completion date around Mid-November.

### Anticipated Obstacles to Meeting Schedule:

- Equipment malfunctioning / no operator to dig / Barges at Idle.
- Narrow spots in the canals between boat docks.
- Displaced material causing contractor to re-work areas to correct high spots.

### Engineer's Notes:

- MD-80 Barge is utilized as an off-loading point during the day and is emptied into the larger Hopper barges in the evenings to cut off-loading time and reach the 5 to 6 load goal.
- Material in the southern canals contains organic matter (tree limbs/trunks) as well as sand and clay.
- Tuesday (9/21), the large tug Ol' Glory was fixed and able to move full Hopper barges to DMMA again.

Field Engineer Signature:



Date: 9/23/2021

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

\*BDI will return to Canals to clean up survey identified high spots





**Photograph Log:**



**Photo 1:** View of 20' Wide Push Barge located in Baseline 4: Southern IOP



**Photo 2:** View of 26' Thruster Barge located in Baseline 1: Southern IOP.



**Photo 3:** View of 20' Wide Push Barge located in Baseline 2: Southern IOP



**Photo 4:** Typical view towards mouth of Baseline 1: Southern IOP. Manatee Signs and Turbidity Curtain visible in the distance.



**Photo 5:** "MD - 80" 30' X 80' Barge utilized to off-load smaller barges staged near the mouth of Baseline 1 in the intracoastal.

**Isle of Palms  
TURBIDITY MONITORING REPORT**

DATE: 9/22/21 TIME: 9:00 A MACHINE: 21000 HACH TURBIDITY METER  
COLLECTOR: Leif G. Smith

**1. WEATHER AND WATER OBSERVATIONS:**  
 Atmospheric Conditions: Wind Speed: 2 mph  
 Wind Direction: W    E    N    S     
 Weather Condition: NW    NE    SW    SE     
 Rain    Clear    Cloudy     
 Water Conditions: Tide Stage: Low    Medium    High     
 Water Current:    mph  
 Water Direction to: W    E    N    S     
 Harbor seas: NW    NE    SW    SE     
 Calm    (little or no waves)  
 Moderate    (waves 1' to 2' high)  
 Rough    (waves > 2' high)

**2. BACKGROUND SAMPLES:**  
 Location Taken: Station 851 Time of Sample: 9:00 A Date: 9/22/21

	Surface Sample	Mid-Depth Sample	Bottom Sample
Sample No.: <u>26456</u>			
Analysis Date: <u>9/22/21</u>			
Analysis Time: <u>9:00 A</u>			
Turbidity (NTU): <u>12.5</u>			

Comments (if any): \_\_\_\_\_

**3. MONITORING SAMPLES (taken every 4 hours):**  
 Location Taken: \_\_\_\_\_ Time of Sample: \_\_\_\_\_ Date: \_\_\_\_\_

	Surface Sample	Mid-Depth Sample	Bottom Sample
Sample No.:			
Analysis Date:			
Analysis Time:			
Turbidity (NTU):			

Comments (if any): \_\_\_\_\_

**Photo 6:** 9/22/2021 Turbidity Form.

**Note:** Monitoring Sample was not recorded.





**Photo 7:** View towards large Hopper Barge staged east of the South IOP canals.



**Photo 8:** Additional Photo of Baseline 1 and Baseline 2 in South IOP. Both 26' Thruster and 20' Push Barges visible in background.