



THE TOWN OF OAK ISLAND, NORTH CAROLINA



LOCKWOOD FOLLY HABITAT RESTORATION PROJECT DREDGING OF EASTERN CHANNEL



What's Changed Since December? – A LOT!

Permit Agency Concerns Required More Work

- **Cultural Survey Required to Verify No Shipwrecks or Artifacts in Eastern Channel**
- **Sediment Chemistry Testing Required to Verify Non-Beach Compatible Material Being Placed in Sheep Island Is Allowable**

USACE Project Concerns Also Had Significant Impact

- **Alerted Town the Day of the Bid that Sheep Island Could Not Be Used for Deposition of Non-beach Compatible Material – Project Had to Be Redesigned to Use Horse Island**

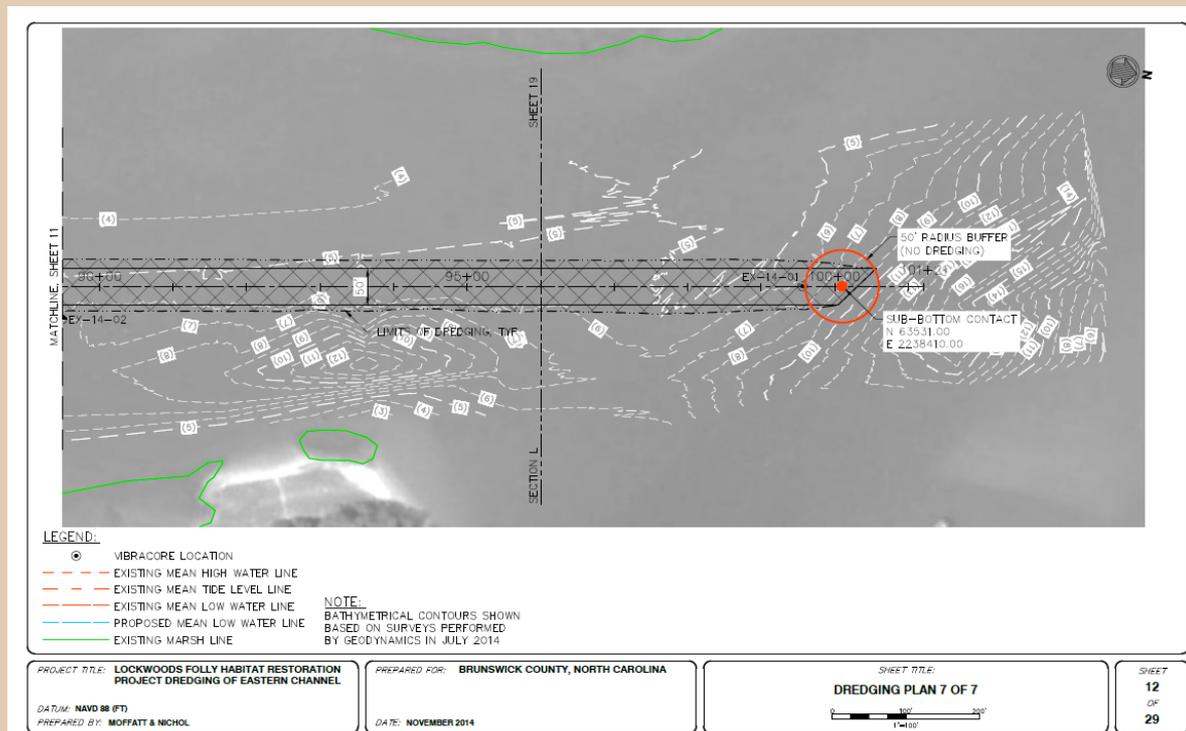
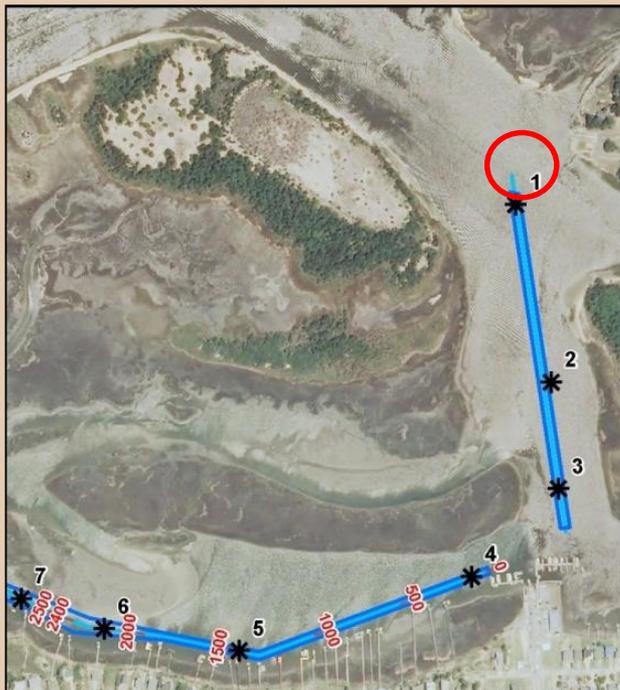
All Items Were Brought Up at Pre-Application Meeting in August

- **No Comments at That Time – So Significant Efforts Required of Project Team to Adjust Project Design and Permit Drawings – Significant Extra Coordination As Well**

Cultural Resource Survey Results

Major Findings

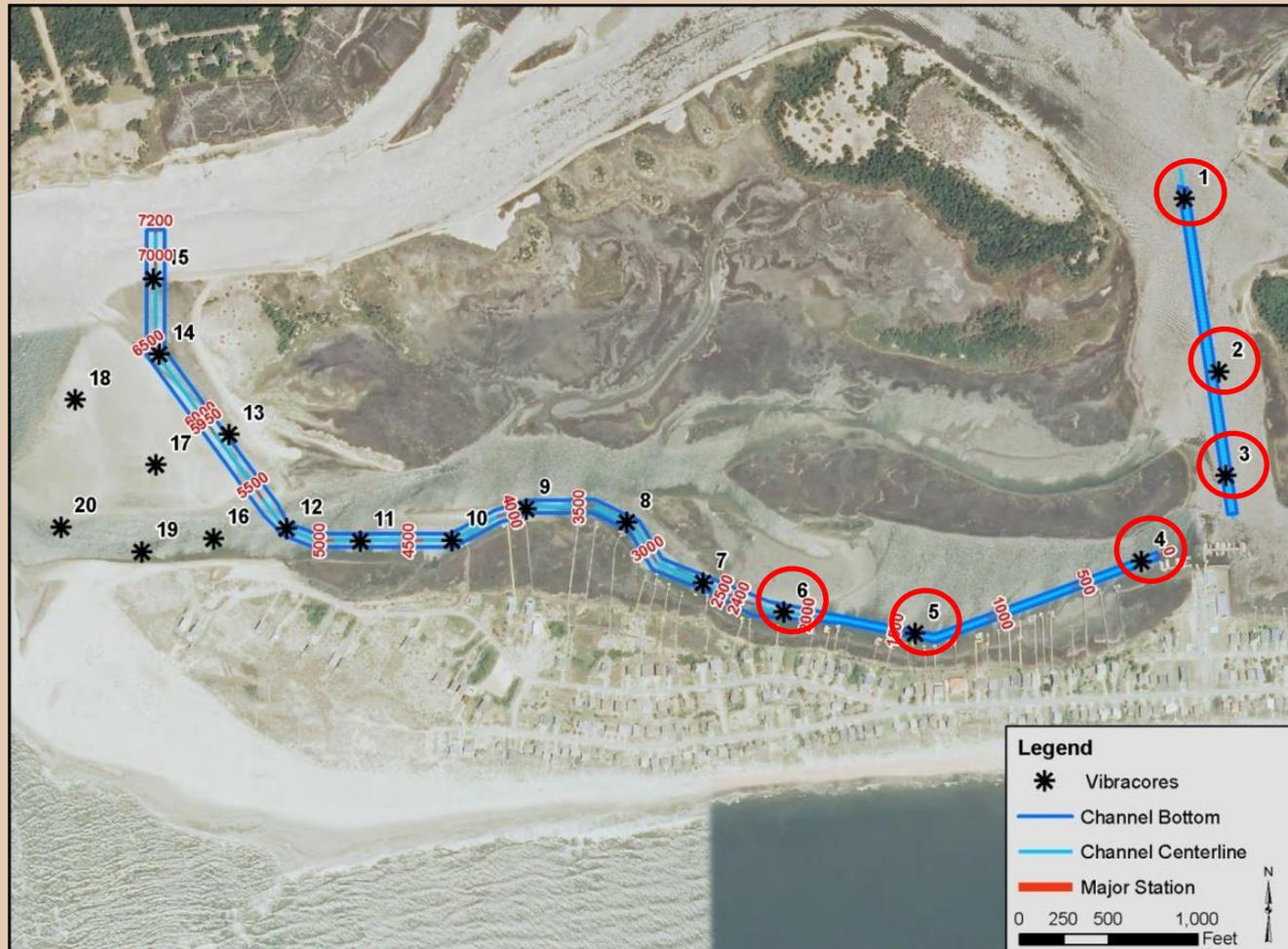
- One Target Found – Significance Determination Would Require Diving
- Given Target's Location at End of Project and Potential to Delay Project – Decision Was Made to Stop Project 50' Away From Target to Meet Required Buffer



Sediment Chemistry Results

Major Findings

- Results Appear Favorable and No Impacts to Project Currently Expected



Current Plan



Permitting

CAMA Major Permit – Submitted on November 26

- Received 401 Water Quality Certification Last Week – Expect CAMA Permit by February 13th

General Permit 291 & Section 408 Review – Submitted on November 26

- Draft Conditions Have Been Developed – 408 Review Deemed Not Needed
- Expect USACE Permit by February 20th

USFWS – Biological Assessment

- Draft Conservation Measures and Monitoring Requirements (Bird & Compaction) Approved
- Biological Opinion – expected by mid-February

NMFS – Essential Fish Habitat Assessment

- Town of Oak Island Must Continue Water Quality Monitoring Program

NC State Property Office

- Provided Letter of Consent to Use Horse Island as Disposal Area

Project Schedule

- Under Contract and Started Field Work – Mid-July
- Received Surveys and Began Concept Design – Mid-August
- Pre-Application Permit Meeting – Late August
- Received Vibracore Data – Late October
- Preliminary Design/Submit Permits – Mid-Late November
- Final Design/Advertise Project – Mid December
- **Bid Opening – Mid-January (2 Openings Required)**
- **Contract Negotiation and Permit Rework – Late Jan/Early Feb**
- **Receive Permits and Award Contract – Mid-Late Feb**
- **Construct Project – March-April for Beach Compatible Portion/
May - Non-Beach Compatible Portion**

Project Funding

Original Total Project Budget = \$3.545 M

<u>Design, Permitting and Construction Observation Services</u>				
Engineering (Design and Construction Observations)				\$145,610
Surveys (Channel and Placement Area)				\$29,992
Environmental and Permitting				\$35,588
Geotechnical Investigations (Assumes 20 - 15' Vibracores with 4 Samples each)				\$63,735
Total Design and Construction Observation Costs				\$274,925
<u>Construction Costs</u>				
Mob/Demob		1 LS	\$750,000	\$750,000
Beach Compatible Dredging and Placement	180,000	cy	\$10.00	\$1,800,000
Non-Beach Compatible Dredging and Placement	20,300	cy	\$7.50	\$152,250
Non-Beach Compatible Placement CDA Fees	20,300	cy	\$2.50	\$50,750
Improvements to CDA		1 LS	\$55,000	\$55,000
Total Construction Costs				\$2,808,000
				\$3,082,925
			Contingency	15%
				\$462,439
Total Project Budget				\$3,545,364

Project Funding

Project Construction Budget = \$3,027,504

Original Estimate					
	MOB/DEMOB	DREDGING AND PLACEMENT (\$/cy)	VOLUME (CY)	TOTAL	
Base Bid	\$600,000	\$10.00	181,600	\$2,416,000	
Alternate	\$250,000	\$7.50	27,200	\$454,000	
2 days suspension of work and 1 day beach tilling				\$103,500	Optional
Total (Including 2 days suspension of work and beach tilling)				\$2,973,500	
Cottrell Bid Received on January 20, 2015					
	MOB/DEMOB	DREDGING AND PLACEMENT (\$/cy)	VOLUME (CY)	TOTAL	
Base Bid	\$675,000	\$12.00	181,600	\$2,854,200	
Alternate	\$75,000	\$5.51	27,200	\$225,000	
2 days suspension of work and 1 day beach tilling				\$50,100	Optional
Total (Including 2 days suspension of work and beach tilling)				\$3,129,300	
Cottrell Negotiated Bid on February 4, 2015					
	MOB/DEMOB	DREDGING AND PLACEMENT (\$/cy)	VOLUME (CY)	TOTAL	
Base Bid	\$900,000	\$10.00	181,600	\$2,716,000	
Alternate	\$84,000	\$7.35	27,200	\$284,000	
2 days suspension of work and 1 day beach tilling				\$50,100	Optional
Total (Including 2 days suspension of work and beach tilling)				\$3,050,100	

Proposed Contract for Cottrell = \$3,000,000

Change to Horse Island Disposal Required Change in Penalty Clauses

- **Cottrell Stated That Change to Horse Island Would Require Additional \$425,000 Over Original Bid To Account for Dike Work and Additional Piping and Booster Pump – Total Bid ~ \$3.6M**

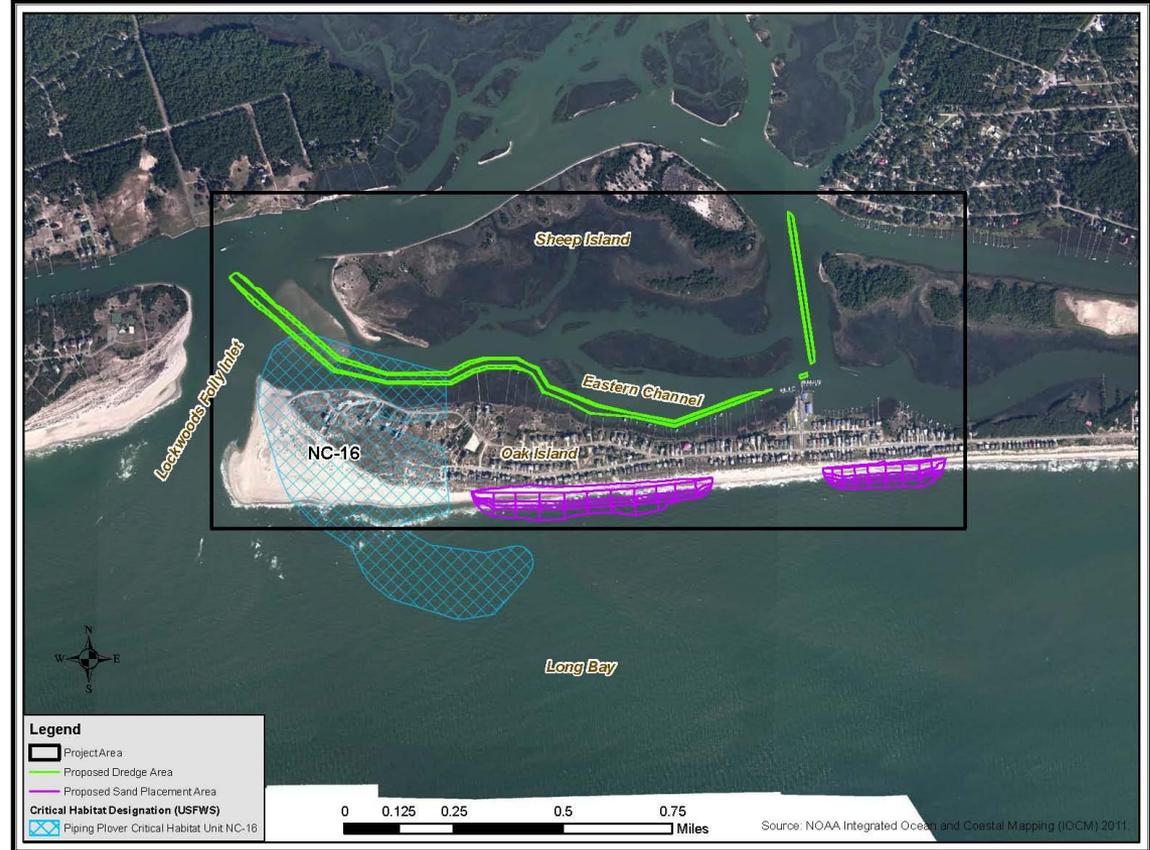
Changes to Penalty Clauses To Get Project Within Budget

- **Original – If Contractor Does Not Complete 80% of Beach Compatible Work – Has to Pay \$2/cy for Awarded Volume Not Placed, Forfeits 5% Retainage and 40% of Mob/Demob Payment**
- **Current – If Contractor Does Not Complete 65% of Beach Compatible Work – Forfeits 20% of Mob/Demob Payment**
- **Allowed Total Contract To Be Equal To \$3,000,000**

Monitoring Requirements

USFWS Biological Opinion Permit Conditions Require Multi-year Shorebird Monitoring Program

- **Weekly Bird Surveys During Construction (10 weeks) and Bi-Monthly for Three Years (2015 – 2017)**
- **\$109,654 Total**



Project Funding

Interim Discussions Held With NCDWR Concerning Additional Costs During Cottrell Negotiations

NC Division of Water Resources (DWR) – 50%

- Agreed to Award Town an Additional \$252,000 for a Total of \$2,024,682 for Construction of Project

Brunswick County

- Board of Commissioners Agreed to Fund \$500k Over 3 Years

Total Available Budget Now For Construction

- $\$3,027,504 + \$504,000 + \$500,000 - \$109,654 = \$3,921,850$
- Allows for \$921,850 in Contingency (If Needed)

Action Items for the Board

Authorize Town Manager To Enter Into Contract with Cottrell Contracting for Construction of Project

- **Base Contract = \$3,000,000 with Potential for Optional Items**
 - Downtime and Beach Tilling
 - Additional Volume If Available

Authorize Town Manager To Amend Moffatt & Nichol Contract to Include Additional Field Investigations and Rework/Coordination Due to Permit Agency/USACE Concerns

- **Amendment = \$101,150**
 - Total Contract = \$376,075 = 12.5% of Construction Contract / 10% of New Budget
 - Includes Construction Observation – Well Within Industry Standard

Authorize Town Manager To Enter Separate Contract With Dial Cordy For Multi-Year Monitoring Program

- **Contract = \$109,654**

Discussion

Thank You!

