

NCBIWA North Topsail Beach Truck Hauls 2021-2023



*Marina, Coastal, Environmental
& Water Resources Engineers*



Location Map

NTB Overview - ~11.1 Miles of Oceanfront



Hurricane Florence



September 14, 2018

Dune Wiped Out

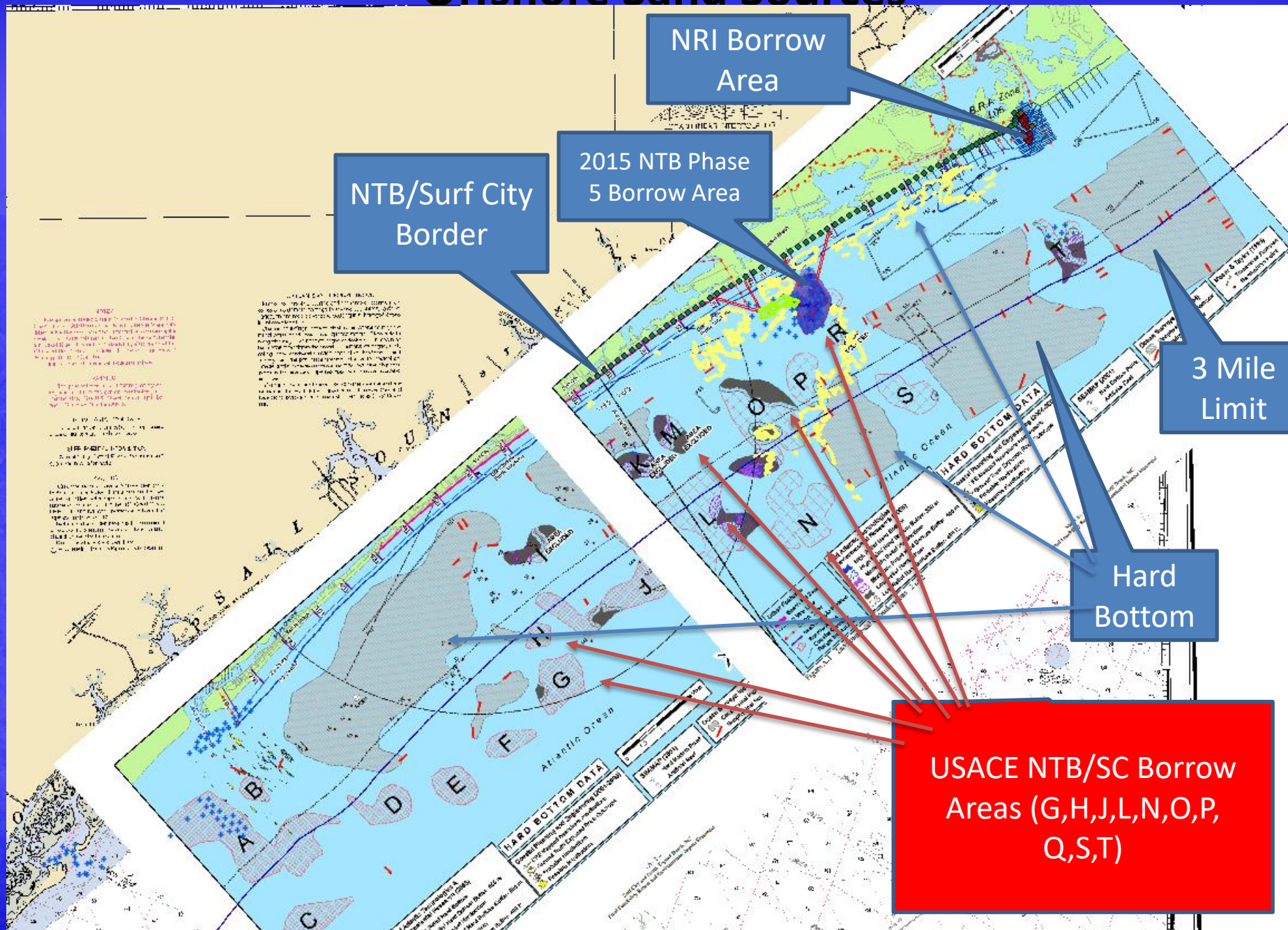




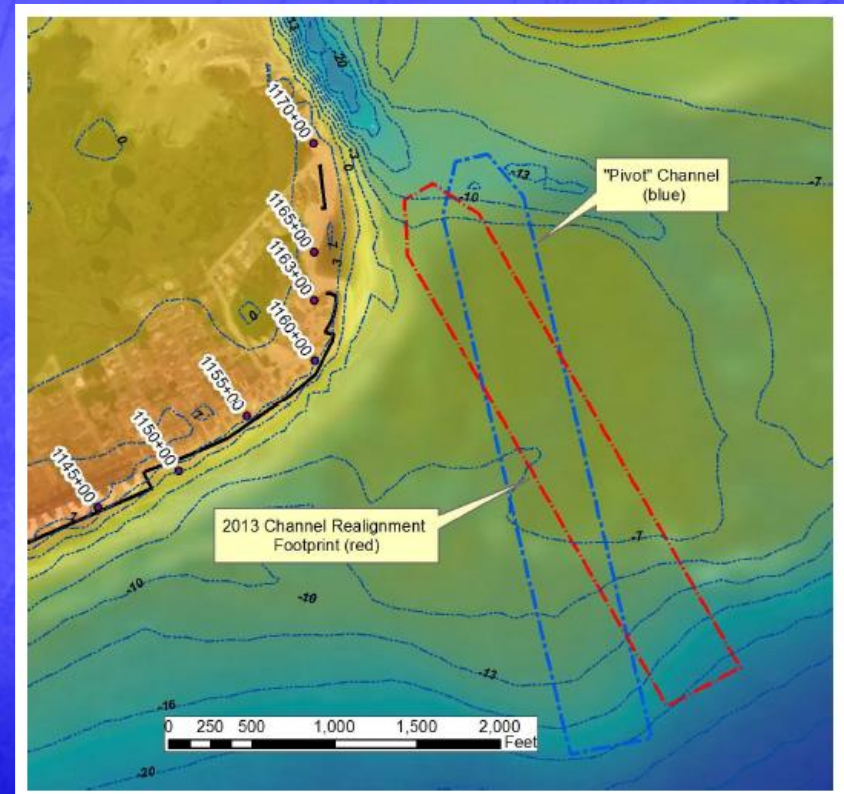
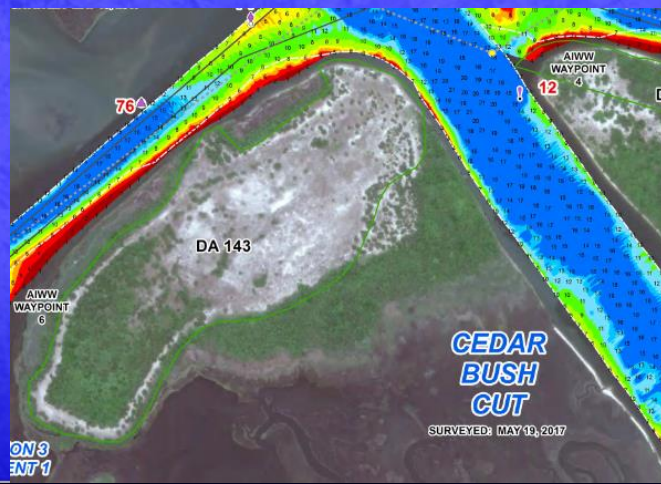
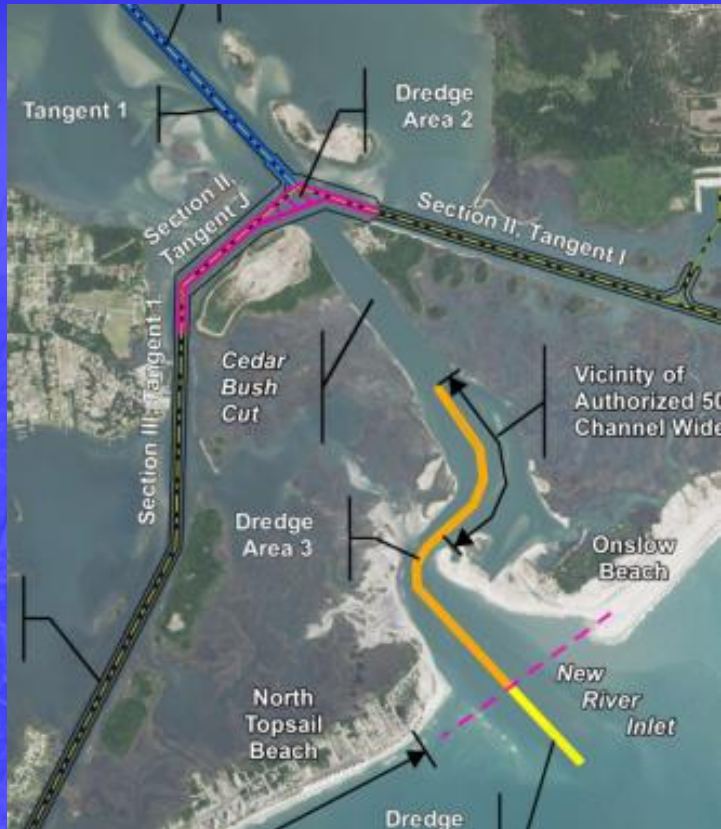
SAND BORROW AREA SOURCES

- 1.Upland (Truck Haul)**
- 2.Dredge Spoil Islands**
- 3.New River Inlet**
- 4.Offshore**
- 5.New River/AIWW/Cedar
Bush Cut**

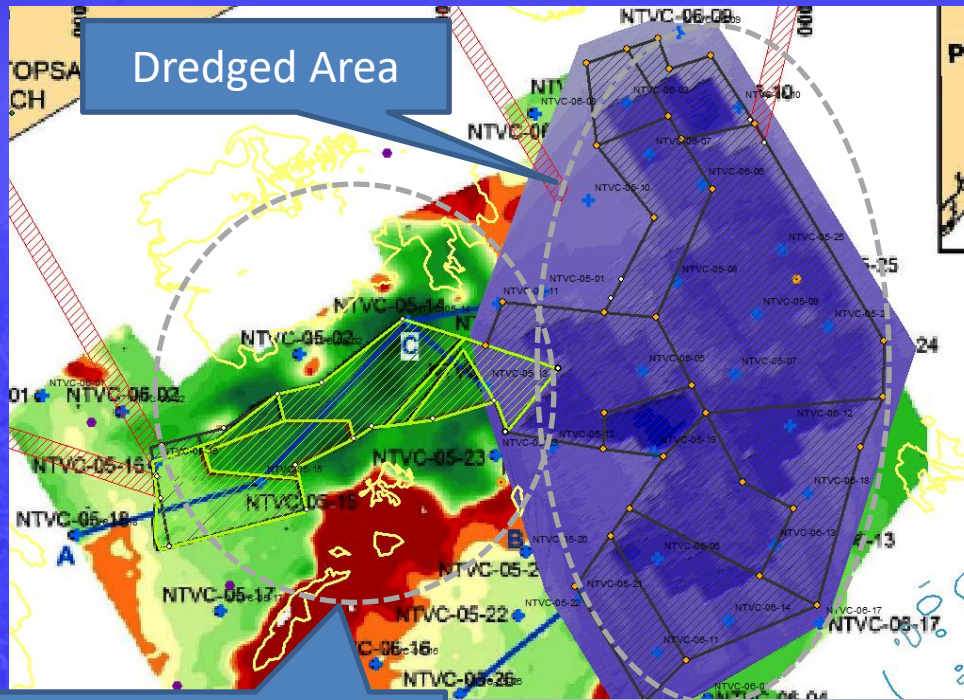
Offshore Sand Sources



Upland and Inshore Sand Sources



2015 Offshore Borrow Area



Undredged Area



Figure 35. Rock box installed during dredging operations.

- FEMA EHP - Environmental and Historic Preservation (Magnuson Stevens Act, Executive Orders, OCC legal review, etc.)
- Offshore Borrow Area not to be used



Photo 2. The rock picker was dragged behind a tractor along the beach fill area to remove rocks between Sta. 755+00 to 750+00.

Financial Observations (DEC 2020/2021/2022)

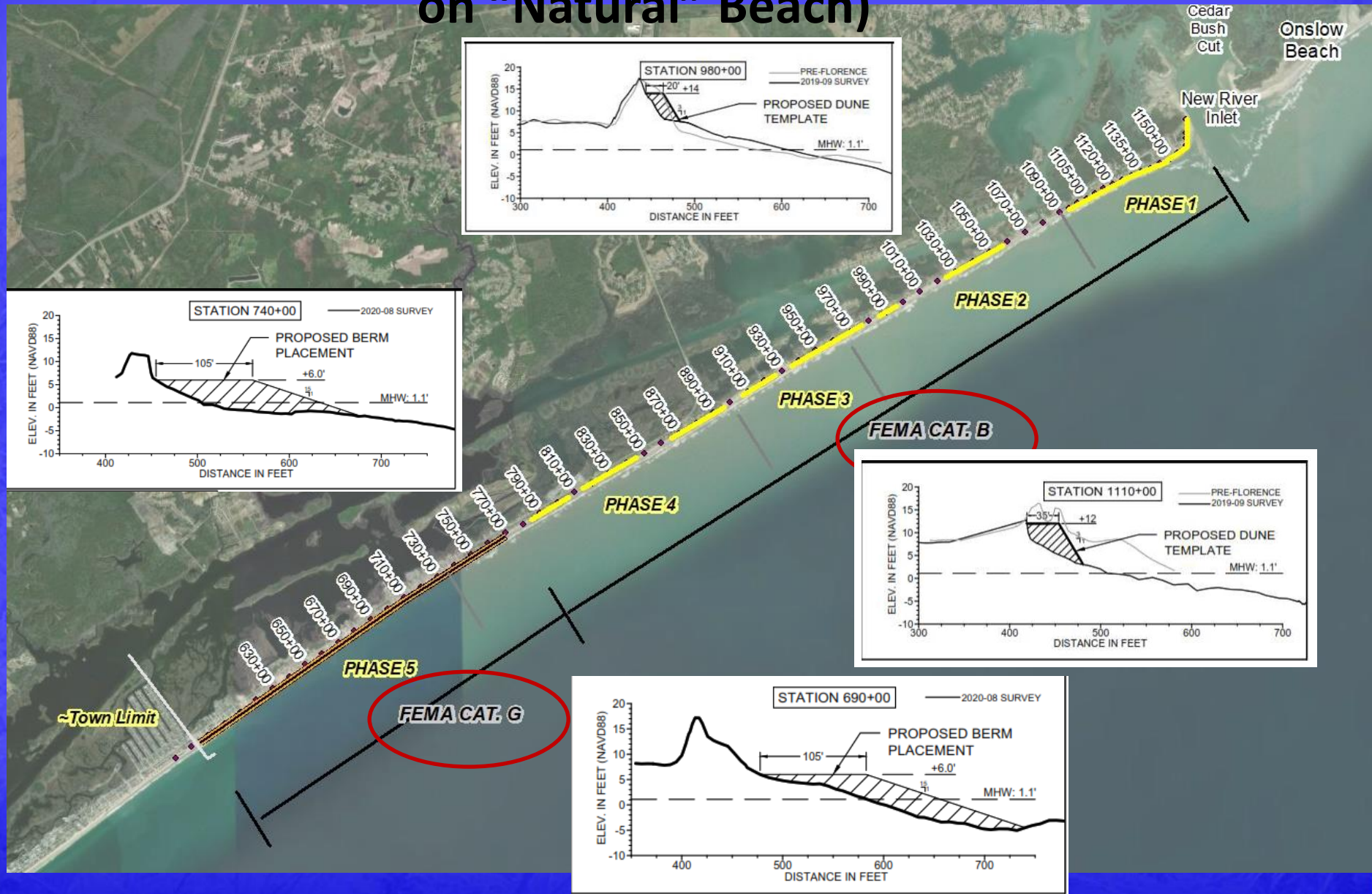
- Beach Fund Balance Review
 - NTB Has Contractual Obligation to Repay 2015 USDA Loan as Rapidly as Possible
 - DEC Recommended Moving Forward with Resolutions for Two Special Obligation Bonds (SOBs) Related to FEMA Projects
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FEMA Cat B and Cat G Summary

NTB FEMA Projects	FEMA Portal Numbers	FEMA Volume (cubic yards)	REACH/PHASE
Florence Cat B Dune	\$ 4,503,025.83	137,506	1-4
Dorian Cat B Dune	\$ 533,808.00	7,613	2-4
Florence Cat G Engineered	\$ 13,696,691.00	607,059	5
Dorian Cat G Engineered	\$ 3,505,603.00	45,734	1 and 5
Note: costs includes vegetation planting			

State Grants also increased volumes placed

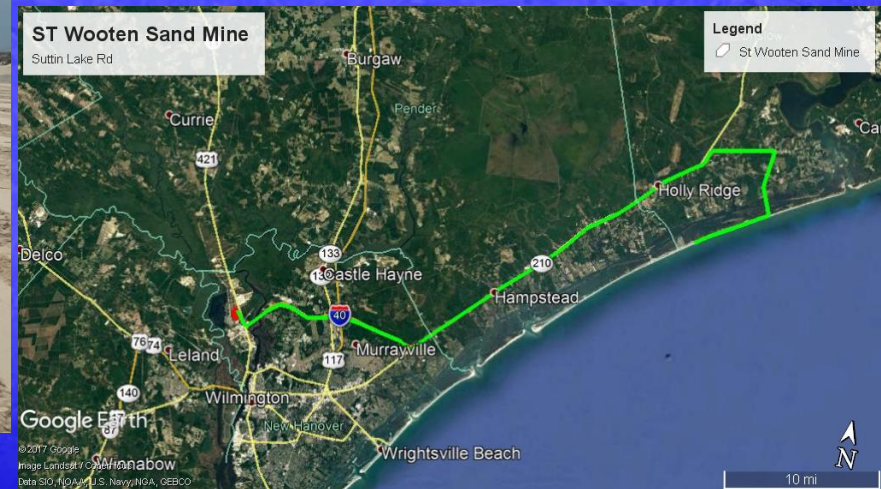
FEMA Florence Cat G (Engineered Beach) and Cat B (Dune on "Natural" Beach)



North Topsail Beach Truck Haul Mines – 421 Sand and ST Wooten

- *Reasonable Cost*
- *Material is Extremely High Quality*
- *Active Mine – No Need for Mining Permit*
- *By Permit, must be Hydraulically Excavated*
- *Pre-washed of silt and screened*

*Overall, Truck Hauls Keep Money Local
When Compared with most Dredging
Outfits*



421 Sand Upland Mine



Truck Haul Operations



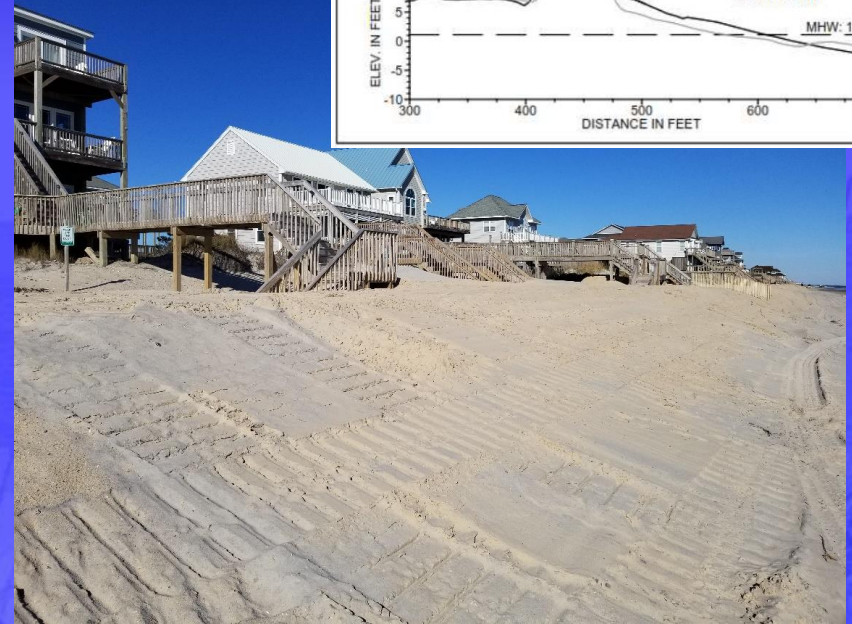
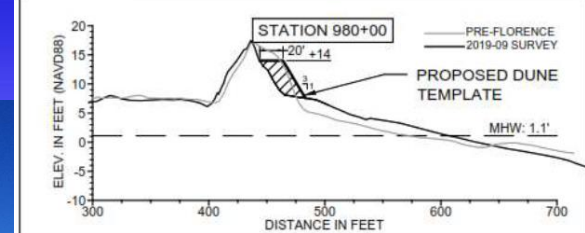
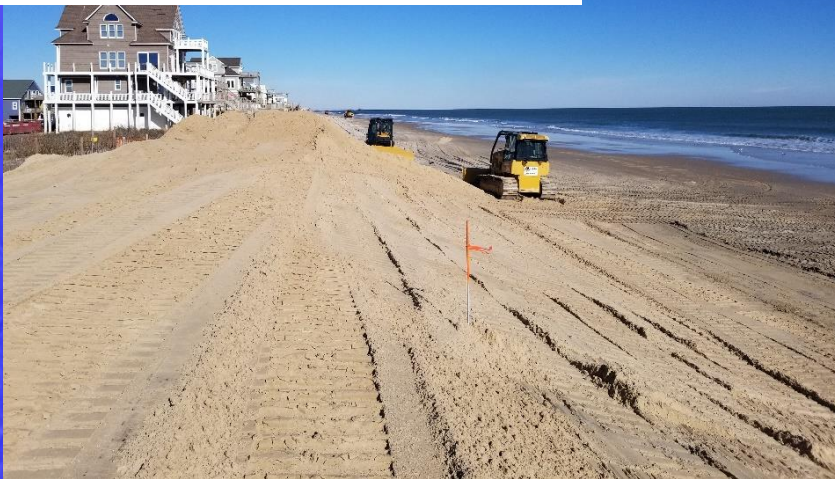
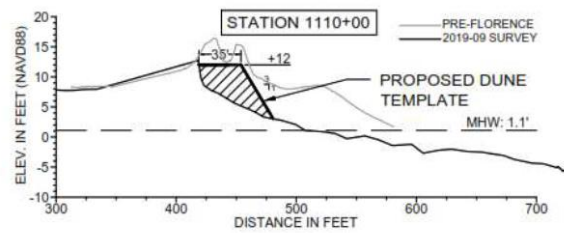
**Transfer from Dump Trucks to All-Wheel
Drive Beach Dump Trucks**







DUNE PLACEMENT





BEACH (Not Dune) Placement







Dune Restoration, Beach Fill, and Revegetation



TRUCK HAUL CONSIDERATIONS

- Survey-In-Place vs Truck Tickets (stockpile then push into place at low tide for beach fill)
- Fuel Allowances based on Market Fluctuations
- Two Competing Sand Mines and Haulers
- Production Rates – 15,000 cy/week, ~300,000 to 350,000 cy per hauler per season
- Nominal Mobilization Fees, especially compared with Dredges



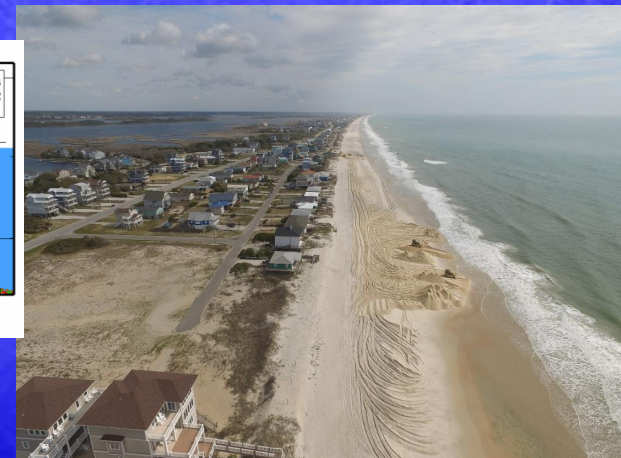
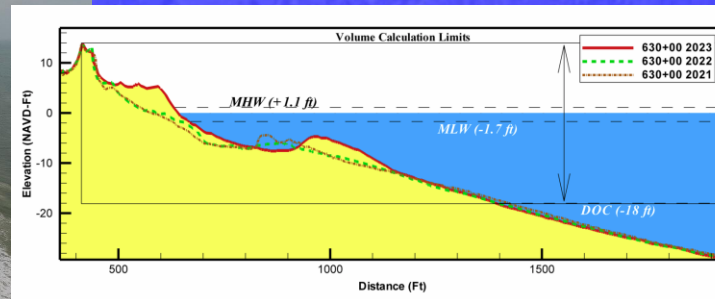
NTB BISAC

UPDATE TO THE 30-Year Plan (Adaptive)

Beach Inlet and Sound Advisory Commission (BISAC) – December 2021

Includes Offshore, Inlet, Estuarine, Disposal Area Sand Sources

Finances/Funding



Summary - ~1.3 million cubic yards planned/placed from 2019 to 2025 (not including Corps AIWW/Inland Channel Dredging)

Date Completed		Shoreline Phase(s)	Volume (cy)	TOTAL COST
2019/2020	FEMA Truck Dune Haul - Matthew Mitigation	5	168,000	\$ 5,330,460
2019/2020	Truck Dune Haul - Florence State Project	4	66,000	\$ 2,112,000
Spring 2021	FEMA Truck Dune Haul - Florence Mitigation	1,2,3,4	117,000	\$ 3,972,150
Winter 2021	FEMA Truck Dune Haul - Florence Mitigation	1,2	30,000	\$ 1,020,000
Spring 2022	FEMA Truck Engineered Beach Haul - Dorian Mitigation	1	15,000	\$ 600,000
Spring 2022	FEMA Truck Engineered Beach Haul - Florence Mitigation	5	120,000	\$ 3,960,000
2022/2023	FEMA Truck Engineered Beach Haul - Florence Mitigation	5	295,000	\$ 9,735,000
2023/2024	FEMA Truck Engineered Beach Haul - Florence Mitigation	5	180,000	\$ 5,940,000
2023/2024/2025*	State Grant Truck Haul	4	302,000	\$ 9,362,000