

North Topsail Beach Coastal Update

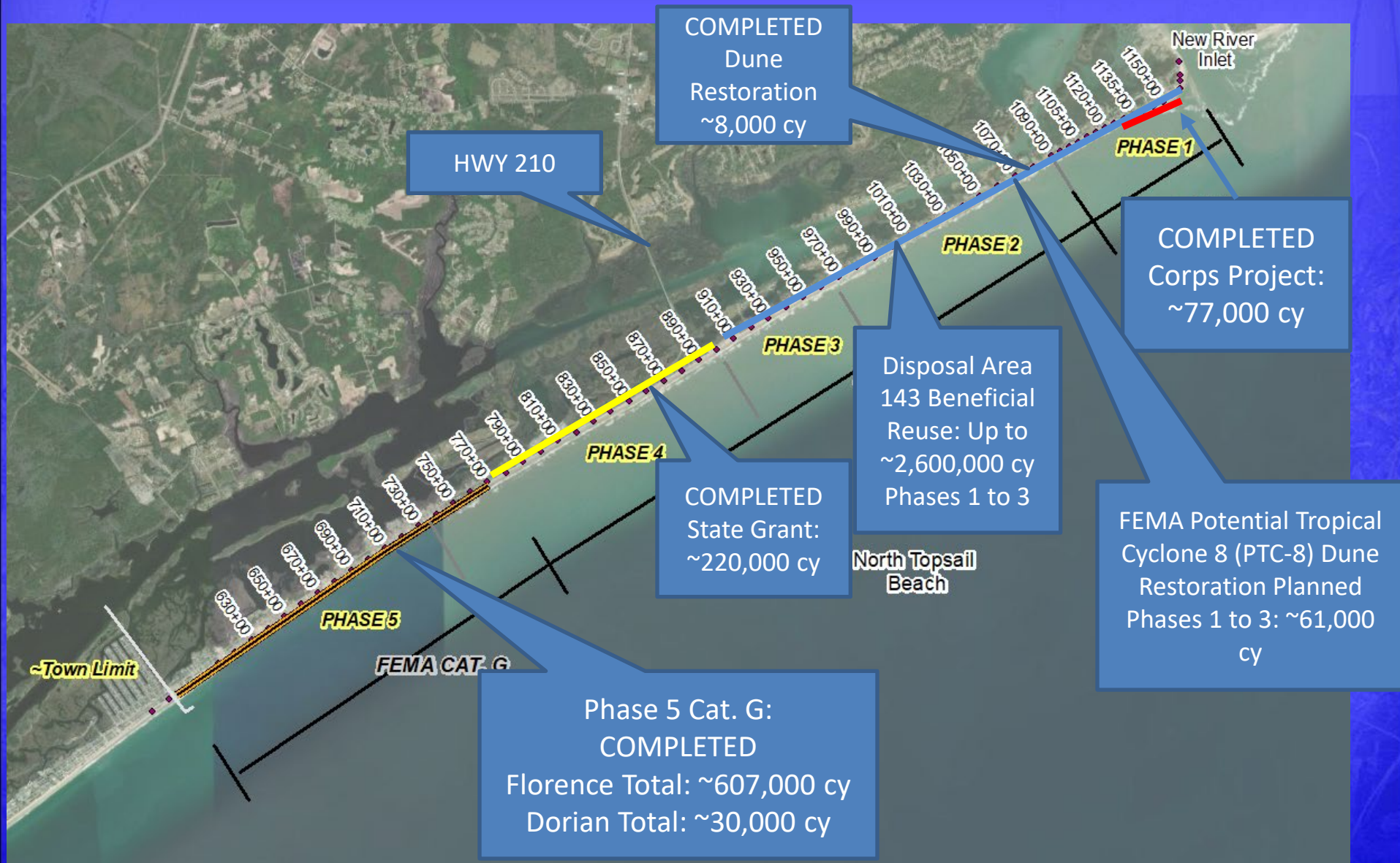
June 2025



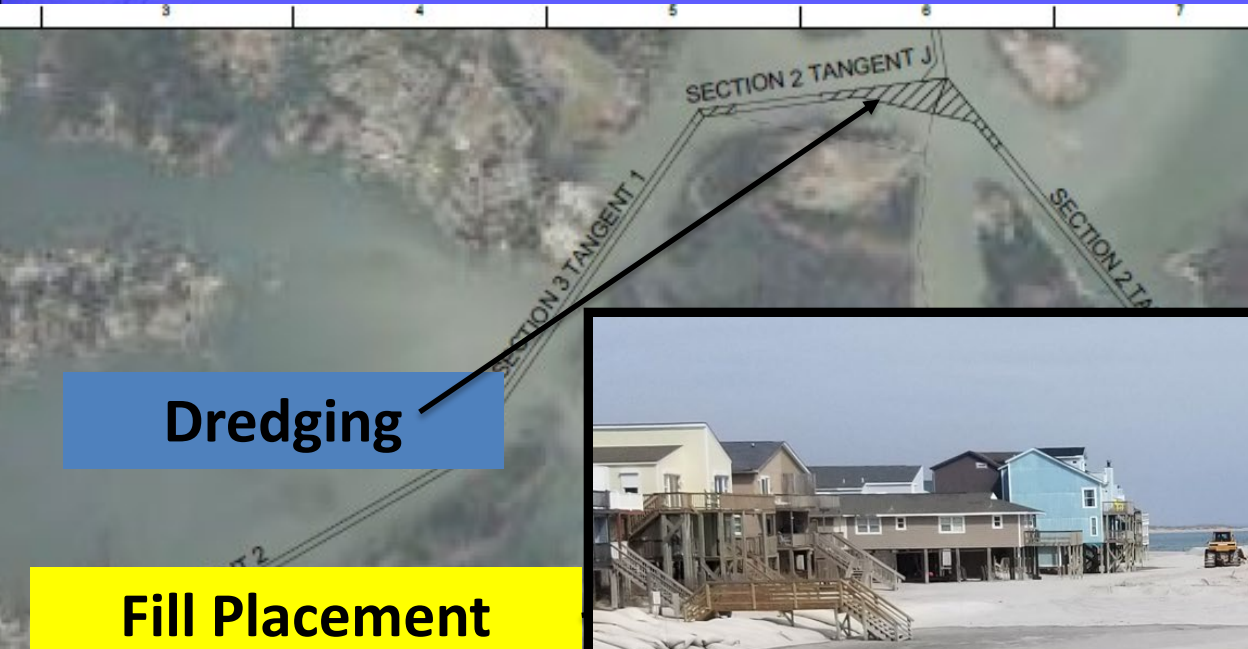
Marina, Coastal, Environmental
& Water Resources Engineers

Recent and Upcoming Projects Overview

State Grant, Beneficial Reuse, FEMA, Corps Projects



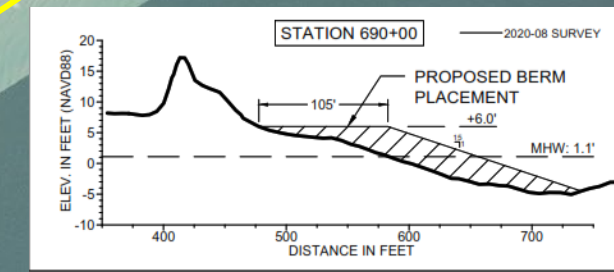
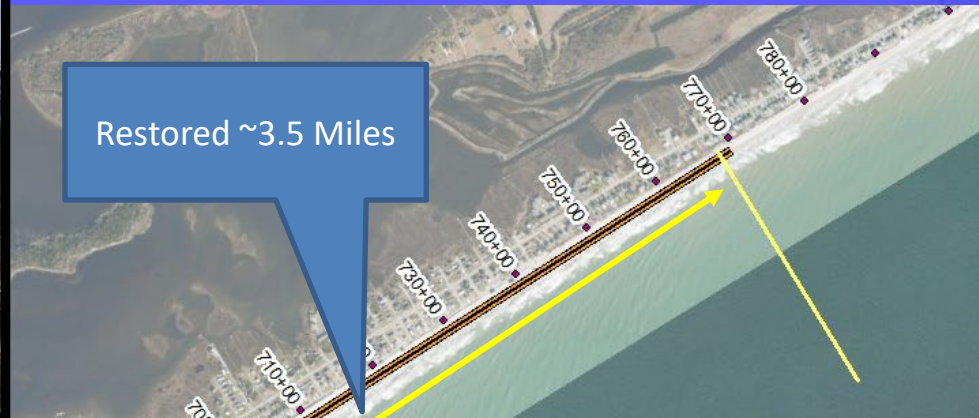
USACE Navigation Dredging and Placement Phase 1 Corps Beneficial Reuse Project



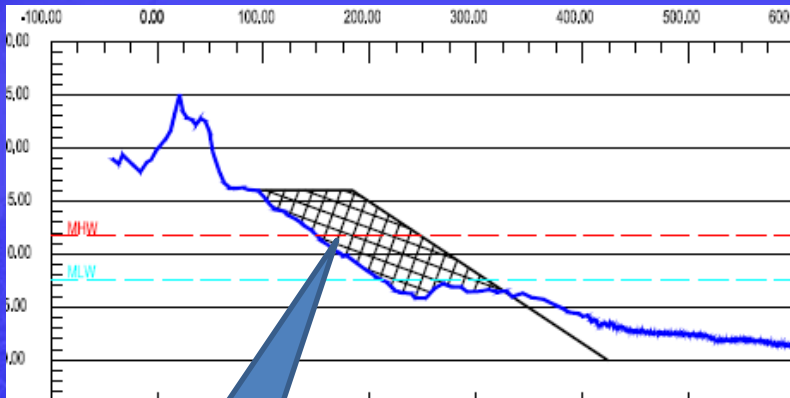
Completed at end of February.
Dredge experienced some
mechanical issues (long
pumping distance).



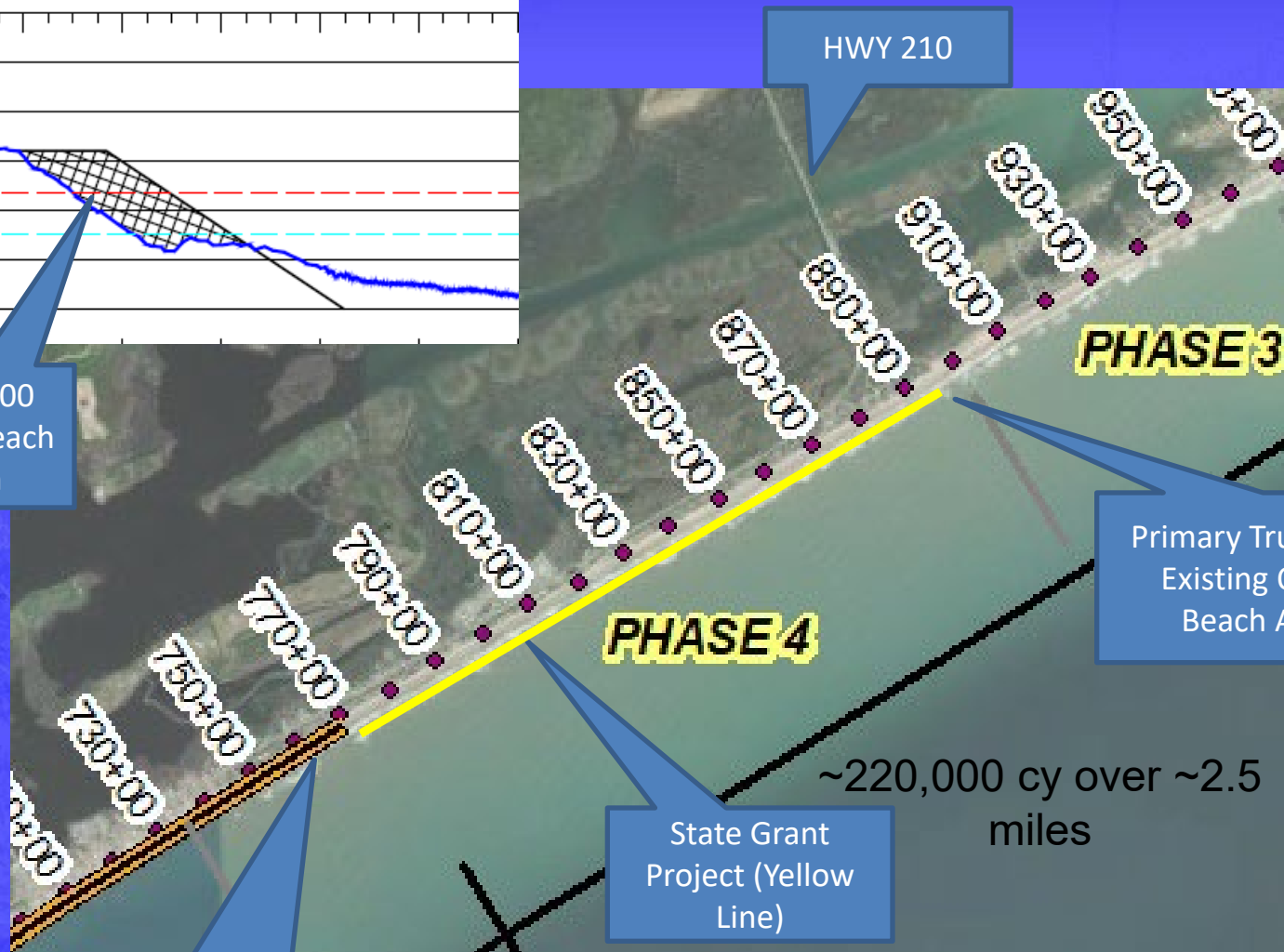
COMPLETED FEMA Mitigation Nourishment in Phase 5 (and some Phase 4) Beach (not Dune) Nourishment. ~3.5 Miles of Restored Beach. Held up well to PTC-8 and other recent storms.



Completed State Grant in Phase 4. Beach Nourishment



~80 to 100
Feet of Beach
Width



Primary Truck Access at
Existing Opening at
Beach Access 33

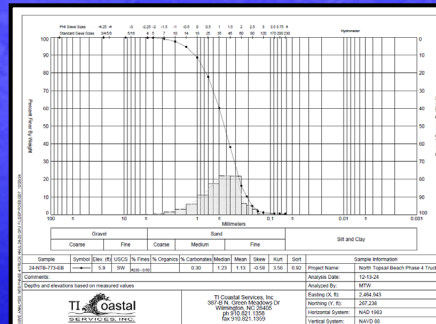
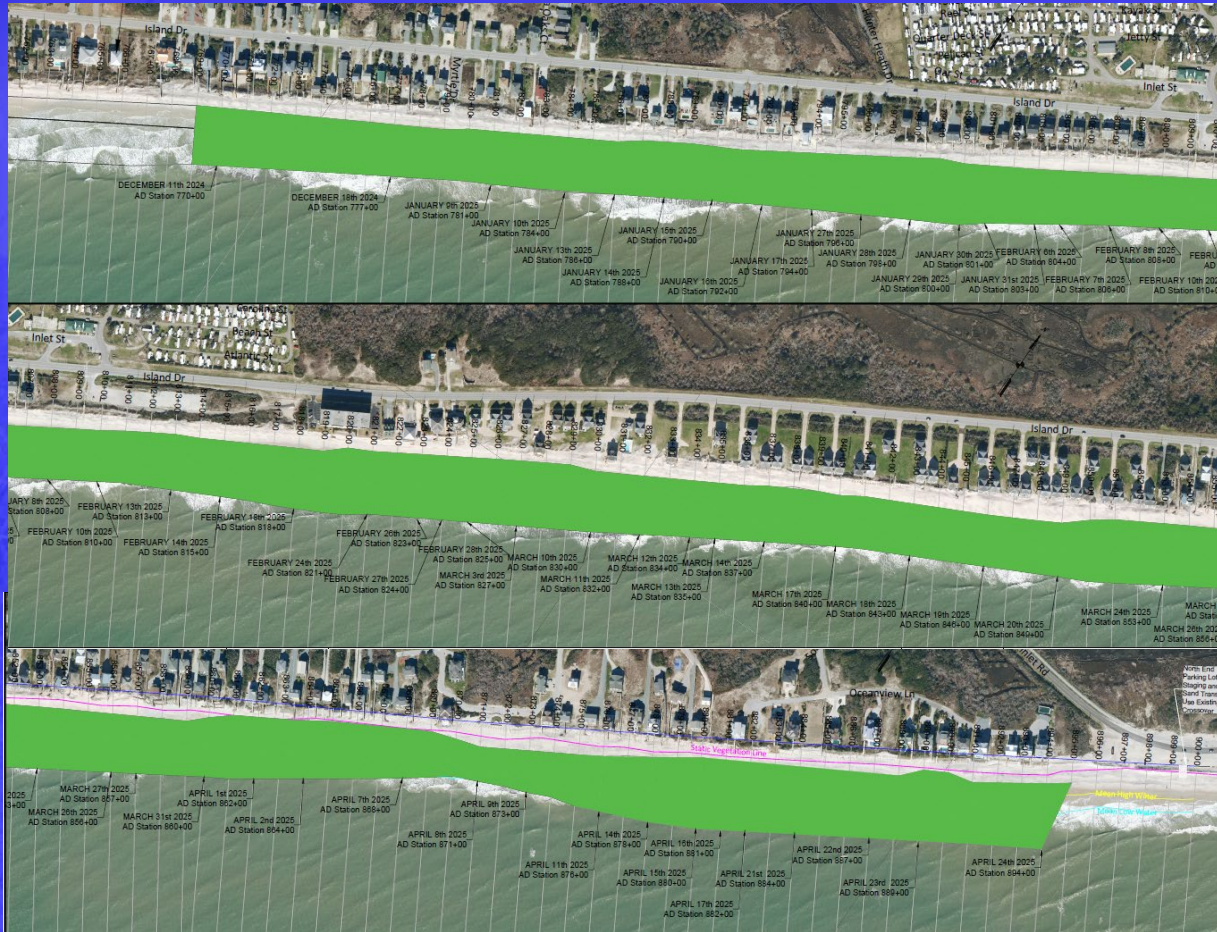
~220,000 cy over ~2.5
miles

State Grant
Project (Yellow
Line)

Secondary Truck Access
at Existing Opening at 2nd
Avenue

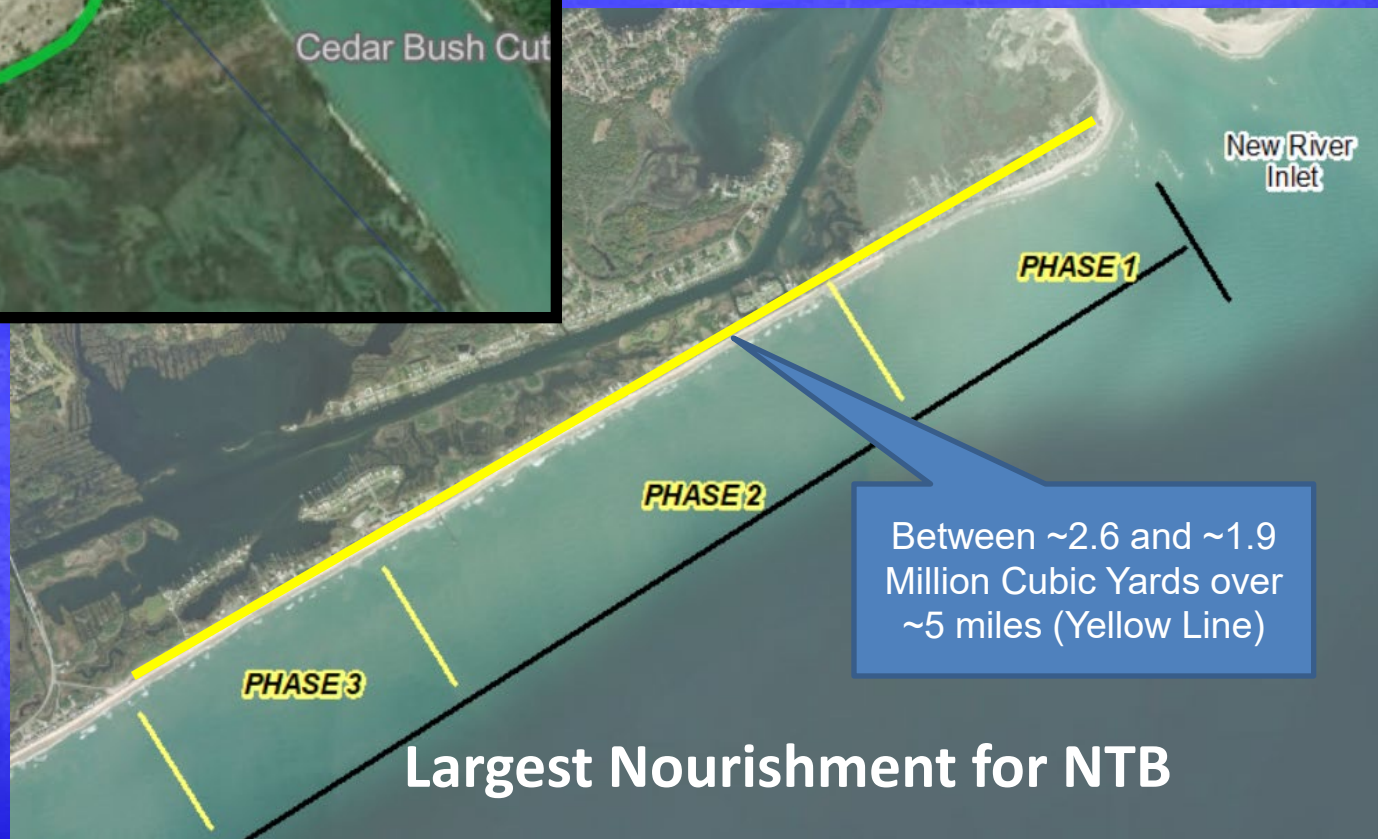
Phase 4 Nourishment

~220,000 cy Placed



Disposal Area (DA) 143 Beneficial Reuse and Placement in Phases 1, 2, and 3

- Investigations Ongoing, Pre-App
- Permit Application to Follow.
- 2024 Analysis shows up to 2.6 million cubic yards at DA 143 (1.9 million cubic yards was previous estimate)



Potential Tropical Cyclone (PTC) 8

DECLARED OCTOBER 19, 2024

SUMMARY

STATE: North Carolina
NUMBER: FEMA-4837-DR
INCIDENT: Potential Tropical Cyclone Eight
INCIDENT PERIOD: September 16-20, 2024
DATE REQUESTED BY GOVERNOR: October 16, 2024
FEDERAL COORDINATING OFFICER: E. Craig Levy, Sr.
National FCO Program

DESIGNATIONS AND TYPES OF ASSISTANCE:

INDIVIDUAL ASSISTANCE (Assistance to individuals and households):

Not Requested.

PUBLIC ASSISTANCE (Assistance for emergency work and the repair or replacement of disaster-damaged facilities):

Brunswick, Carteret, New Hanover, and Onslow Counties.

Dune Restoration to Withstand 5-Year Storm

Public Assistance

APPLICANT BRIEFING

Potential Tropical Cyclone Eight 2024

Public Assistance (PA)

Provides grants to eligible state, local governments, EBCL and eligible private non-profits ("Applicants") to assist with the cost of responding to and recovering from disasters

Governing Laws, Regulations, and Policies

Stafford Act

Law

44 CFR

Program Regulations

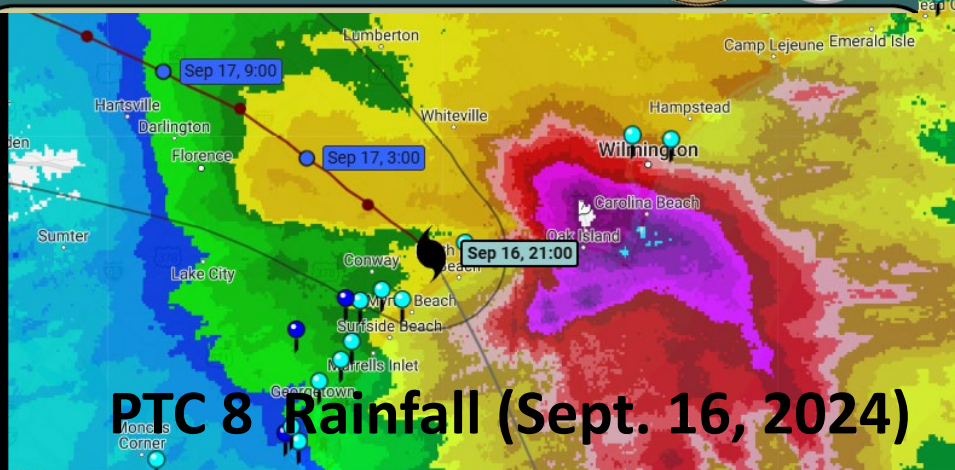
2 CFR

Procurement Requirements

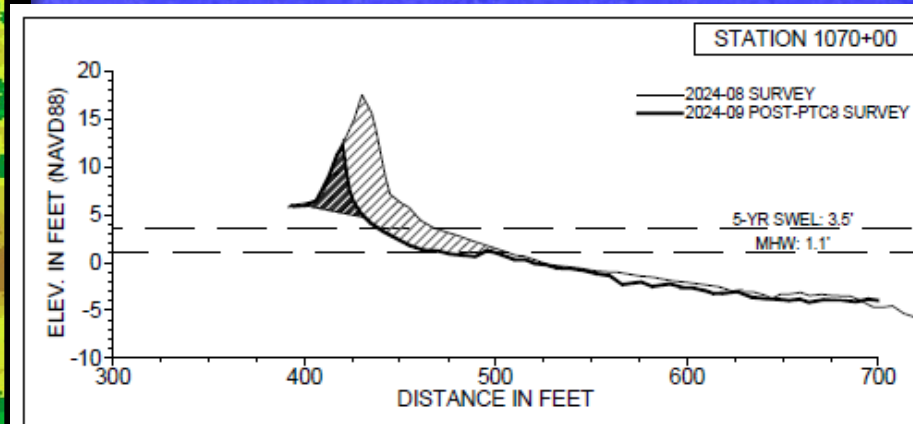
PA Program & Policy Guide (PAPPG)

Policy

FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)
ENVIRONMENTAL PLANNING AND HISTORIC PRESER-
VATION (EHP) GREENSHEET FOR DR-4837-NC



PTC 8 Rainfall (Sept. 16, 2024)



Potential Tropical Cyclone (PTC) 8

FEMA Qualified Volume
Calculations Based on
5-Year Storm Runup
and Erosion Analysis

**FEMA Category B
Mitigation Not
Calculated by Dune
Losses**

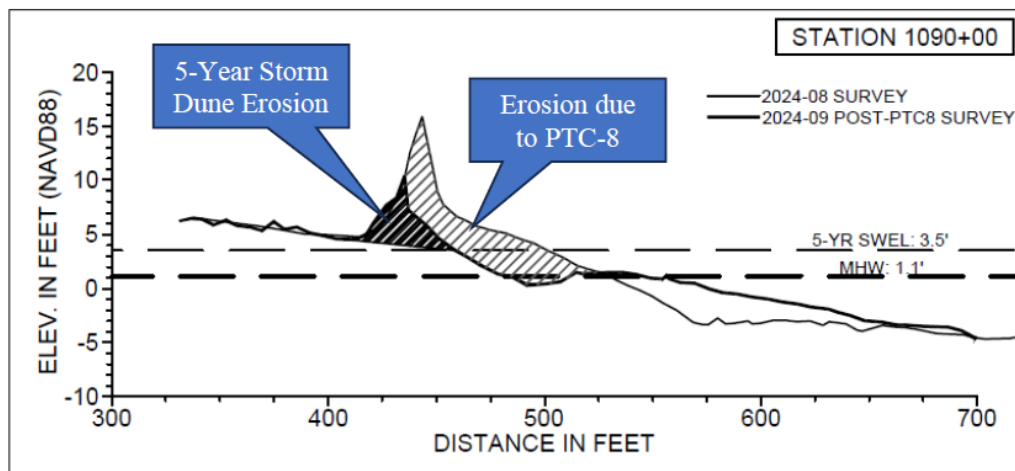
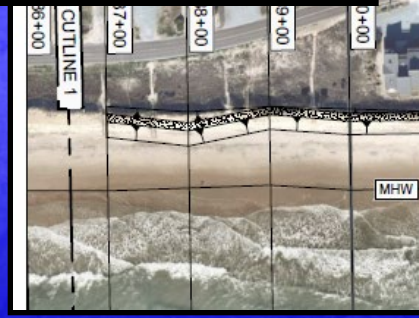
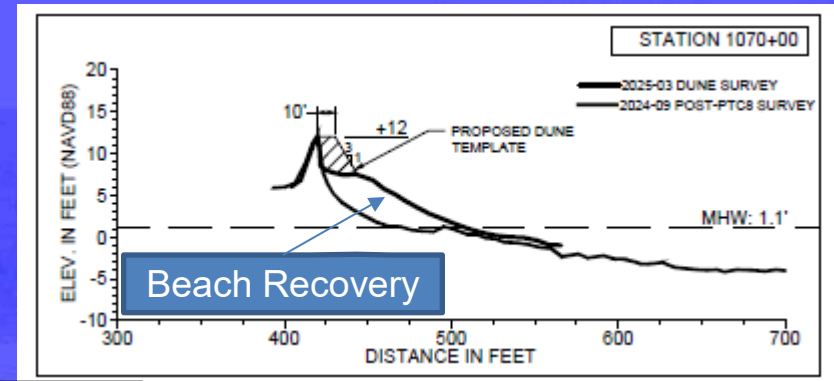
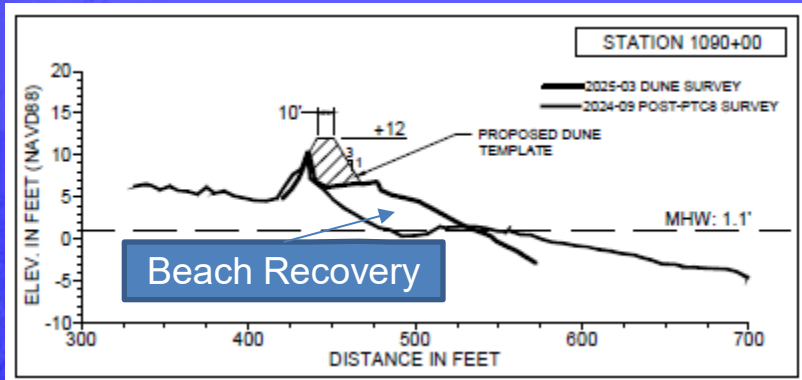


Figure 4: Transect 1090+00 profile showing PTC-8 erosion as well as 5-year storm erosion of 6 cy/ft (as recommended in FEMA mapping guidance).



Critical Dune Restoration: ~8,000 cy in April/May

ST Wooten – Contractor



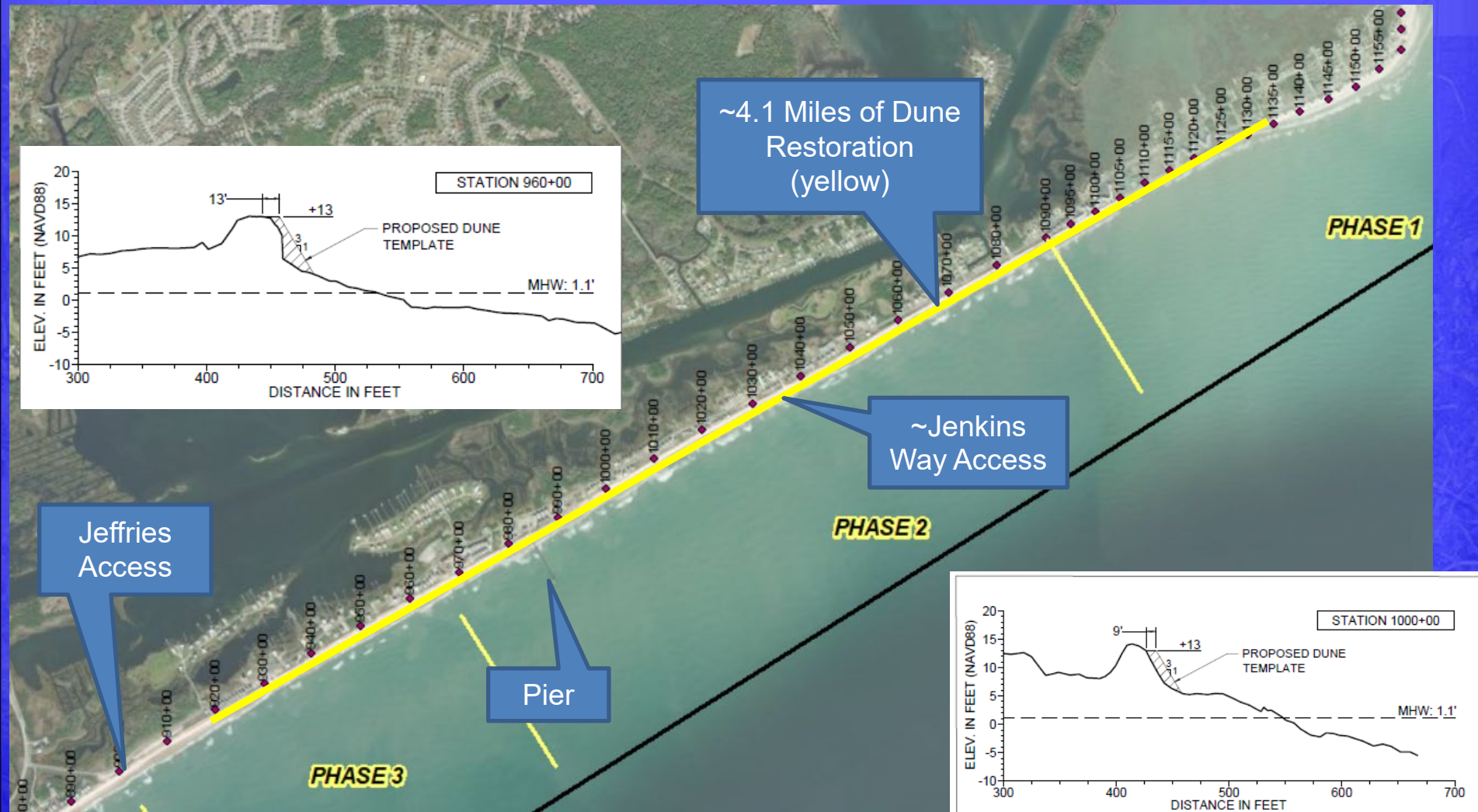
Critical Dune Restoration: ~8,000 cy in April/May

Turtle Nesting on Newly Placed Dune



Thanks to Beasley Sea Turtle Rescue and Rehab Center for doing turtle nest checks every morning in early May before dune restoration work.

Northern Shoreline Dune Restoration (Phases 1 to 3 for 61,000 cy) Planned to Start This November ST Wooten – Contractor



Town Beach Projects Updates

- Phase 1 – Corps AIWW Project (~77,000 cy placed north of Topsail Reef condos).
- New River Inlet Management Master Plan EIS: Final Sections of Draft EIS under USACE review.
- State Grant Nourishment - ~220,000 cy in Phase 4 COMPLETED.
- Post Tropical Cyclone Survey submitted to FEMA/NCEM for PTC 8. 61,000 cy. Focus on Phases 1,2 and 3. FEMA/NCEM coordination continues. ~8,000 cy placed in April/May for most critical sections.
- Disposal Area 143 Beneficial Reuse for Nourishment of Phases 1,2,3 of between ~1.9 and ~2.6 million cubic yards - investigations ongoing , pre-permit application upcoming. Largest NTB nourishment ever.
- Working with NTB Finance Officer and Staff regarding funding, accounting and reimbursement for FEMA and State funded projects
- Grant Coordination
- Permitting Coordination (all projects)

