



Sunset Beach Navigation Project
Update to Town Council
June 16, 2020





Discussion Outline

- Progress Summary Since Last Meeting (April 21, 2020)
 - Status of Beach Placement Alternative
 - ❖ Ocean Isle Beach
 - ❖ Palm Cove
 - Legal Opinion for Off-Island or Upland Placement
- Near Shore Placement Alternative
 - What is Near Shore Placement
 - Methodology for Identifying Placement Location & Acceptable Material
- Next Steps
- Comments & Questions



Project Site Map

Approx. 40,500 CY of beach compatible material will be removed from S. Jinks Creek. The material must be maintained within the active inlet zone.





Potential Beach Placement Areas Considered

- Sunset Beach between 5th & 12th Street
- Palm Cove (Beach Side)
- Palm Cove (Bay Side)
- Ocean Isle Beach (Adjacent to Tubbs Inlet – First 10 Houses)
- Ocean Isle Beach (Ocean Isle Beach West to Sand Castles Condominiums)
- Bird Island State Reserve

Beach placement is not feasible due to the requirements of NCGS 146-6.

“...the title to land in or immediately along the Atlantic Ocean raised above the mean high water mark by publicly financed projects which involve hydraulic dredging or other deposition of spoil materials or sand vests in the State.”



Potential Beach Placement Areas Considered

NCGS 146-6 continues to state..

“All such raised lands shall remain open to the free use and enjoyment of the people of the State, consistent with the public trust rights in ocean beaches, which rights are part of the common heritage of the people of this State.”

However, residents concern focus on the potential loss of ocean front property rights and increased beach width.





Legal Opinion for Off-Island or Upland Placement

M&N requested DCM's legal opinion of option to take beach compatible material off-island, to an adjacent beach or upland placement.

DCM response:

"The language in the NC Dredge and Fill Law at 113-229(h2) is very clear that: "Clean, beach quality material dredged from navigational channels within the active nearshore, beach or inlet shoal systems shall not be removed permanently from the active nearshore, beach or inlet shoal system. This dredged material shall be disposed of on the ocean beach or shallow active nearshore area where it is environmentally acceptable and compatible with other uses of the beach."

We do not interpret subsection (h1) to allow flexibility with respect to the mandate in (h2). However, as we have previously suggested, we may be able to allow temporary storage of the beach-compatible sand on high ground until it can be beneficially placed on an eroding beach or nearshore area in the same inlet system. Because the D&F language says "the" active nearshore, beach or inlet shoal system, we interpret this to mean that the sand must stay in the system where the dredging is occurring."



Legal Opinion for Off-Island or Upland Placement

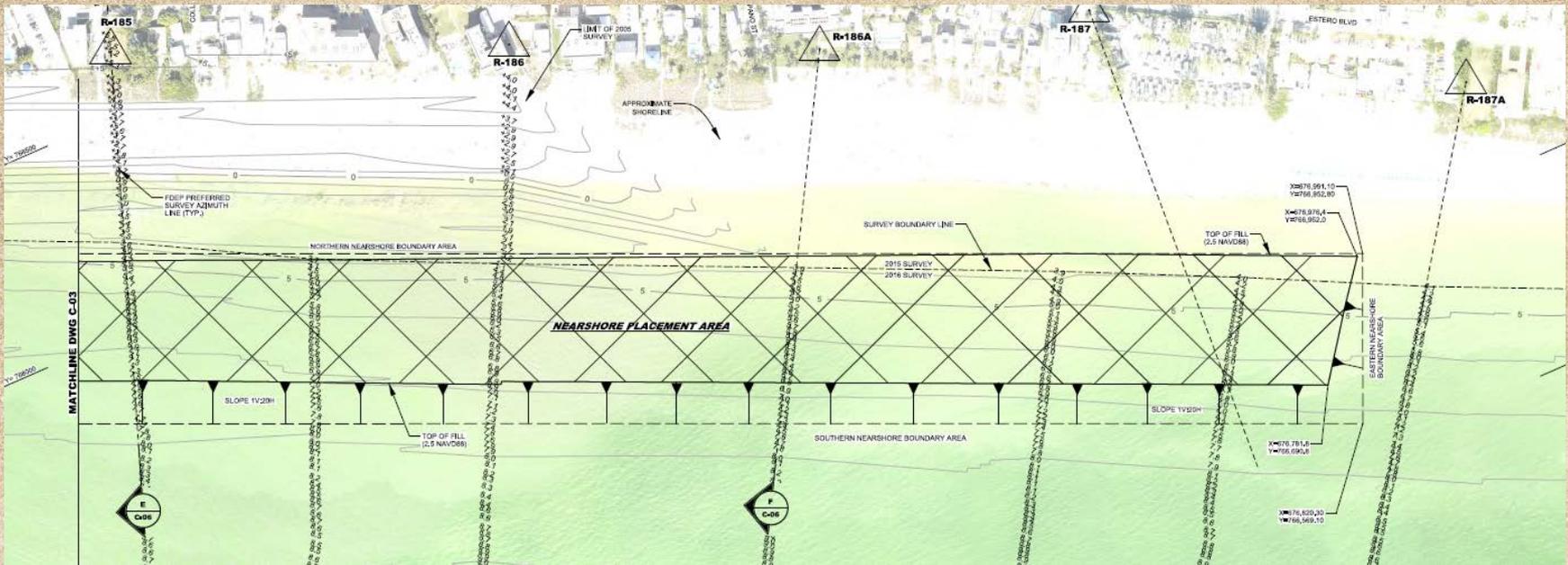
Therefore, stockpiling sand upland is allowed, but the sand would still need to return to the Tubbs Inlet littoral zone. (Sunset Beach or Ocean Isle Beach (West))

Based on DCM's opinion, **Near Shore Placement** remains the most economical and environmentally feasible alternative, since stockpiling would not alleviate the need to place the material within the inlet system at some point in the future.



What is Near Shore Placement

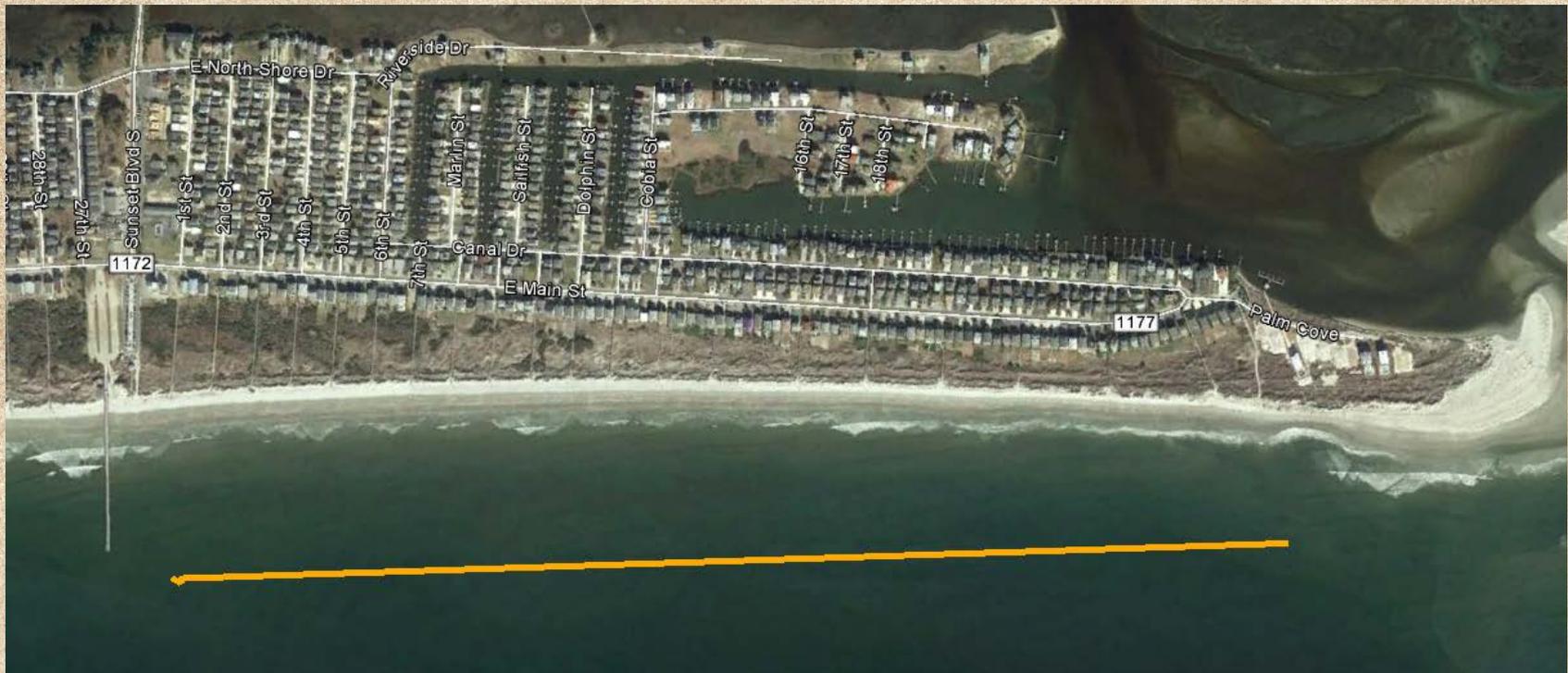
- Historically, the USACE has conducted near shore placement as the most economical alternative. However, many states (including North Carolina) encourage beach placement instead, to provide a greater secondary benefit.
- Near shore placement will place material in 10 ~ 12 ft of water up to a depth of approximately ~ -6-feet.





Methodology for Determining Near Shore Placement Location

- Agency Meeting expected June 30th to discuss preferred location and potential impacts.
- Currently looking along Sunset Beach shoreline between Sunset Beach Pier and Palm Cove.





Methodology to Determine Acceptable Material / Location

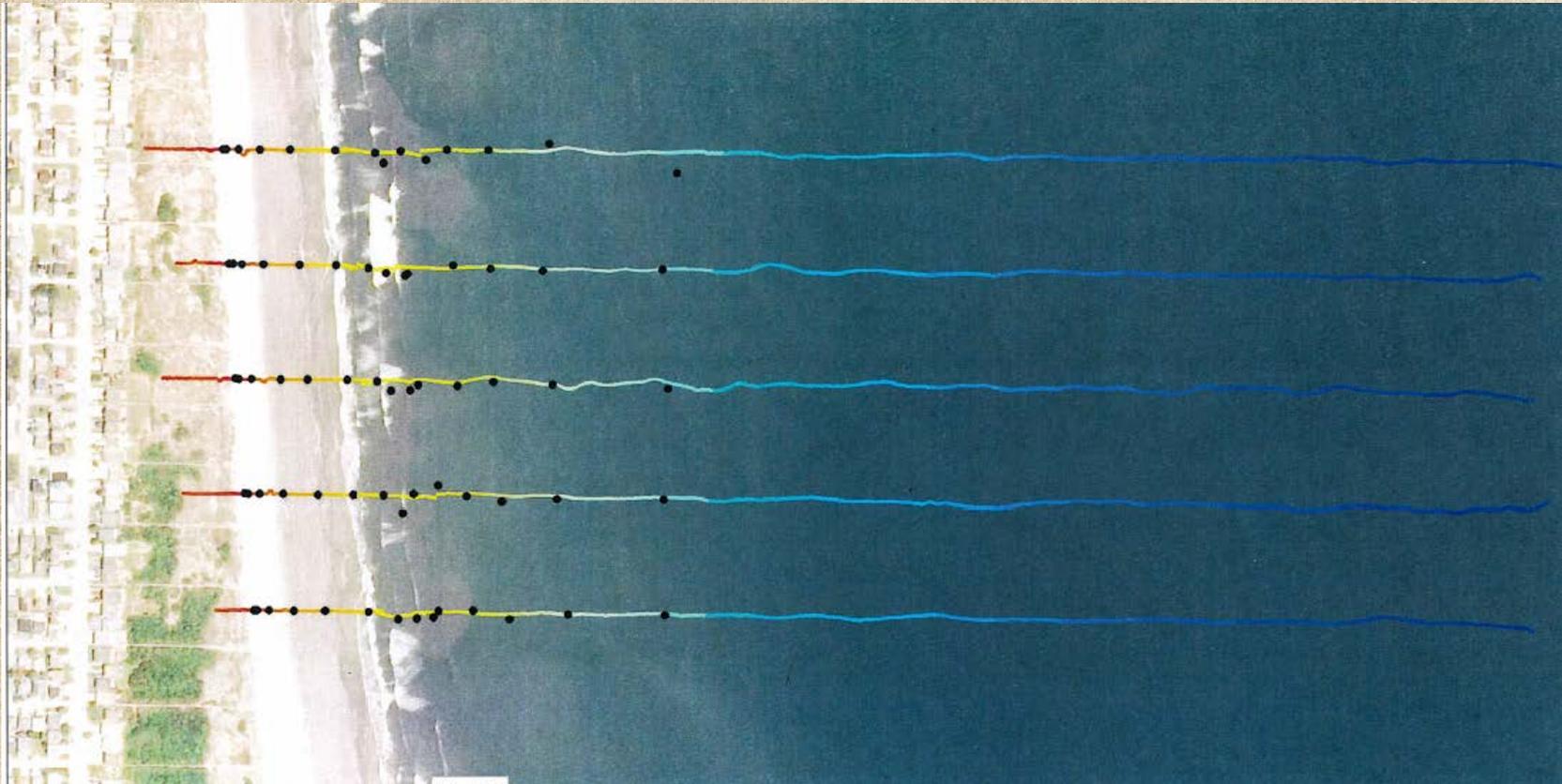
- State requirements, as well as professional integrity, require extensive analysis of material compatibility to help avoid potential impacts.
 - Grain Size
 - Color
 - Shell Content
 - Habitat Usage
 - Shoaling Impacts
 - Archaeological Resources





Methodology to Determine Acceptable Material

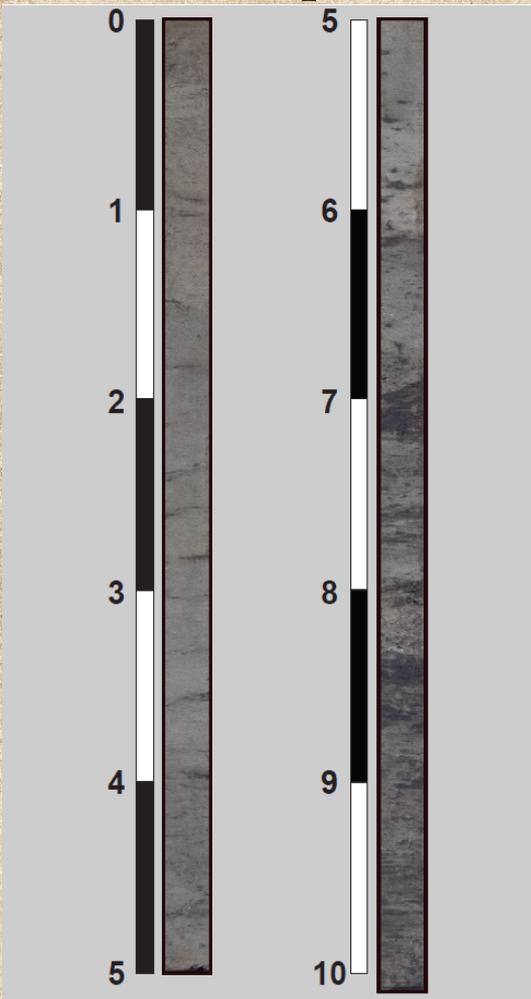
Dredge material must be compared to existing beach material to determine compatibility. (Minimum of 65 beach samples used for analysis.)



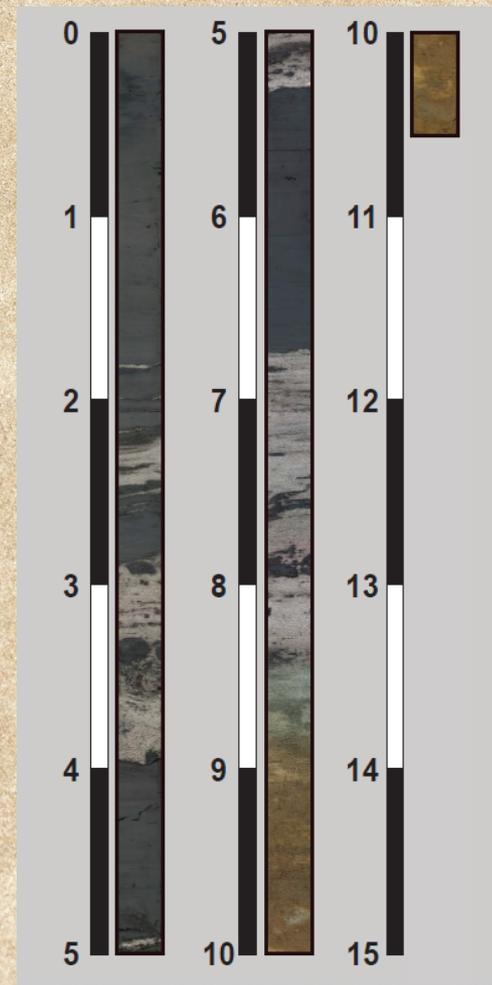


Methodology to Determine Acceptable Material

Beach Compatible



Non-Beach Compatible





Next Steps

- Agency Coordination meeting anticipated June 30th to identify preferred placement location and potential impacts.
- Update Council on July 6th of preferred placement location.
- Conduct necessary field work to satisfy state permitting requirements.
- Complete USACE alternative analysis.
- Update construction costs.
- Preparation of construction plans and specifications.
- Bid solicitation and contractor selection.
- Anticipate construction beginning late 2020 or early 2021.
 - 1st year to include S. Jinks Creek, Mary's Creek & Turtle Creek.
 - 2nd year to include Feeder Channel, Finger Canals, and Bay Area.



Thank you!

Questions / Comments

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