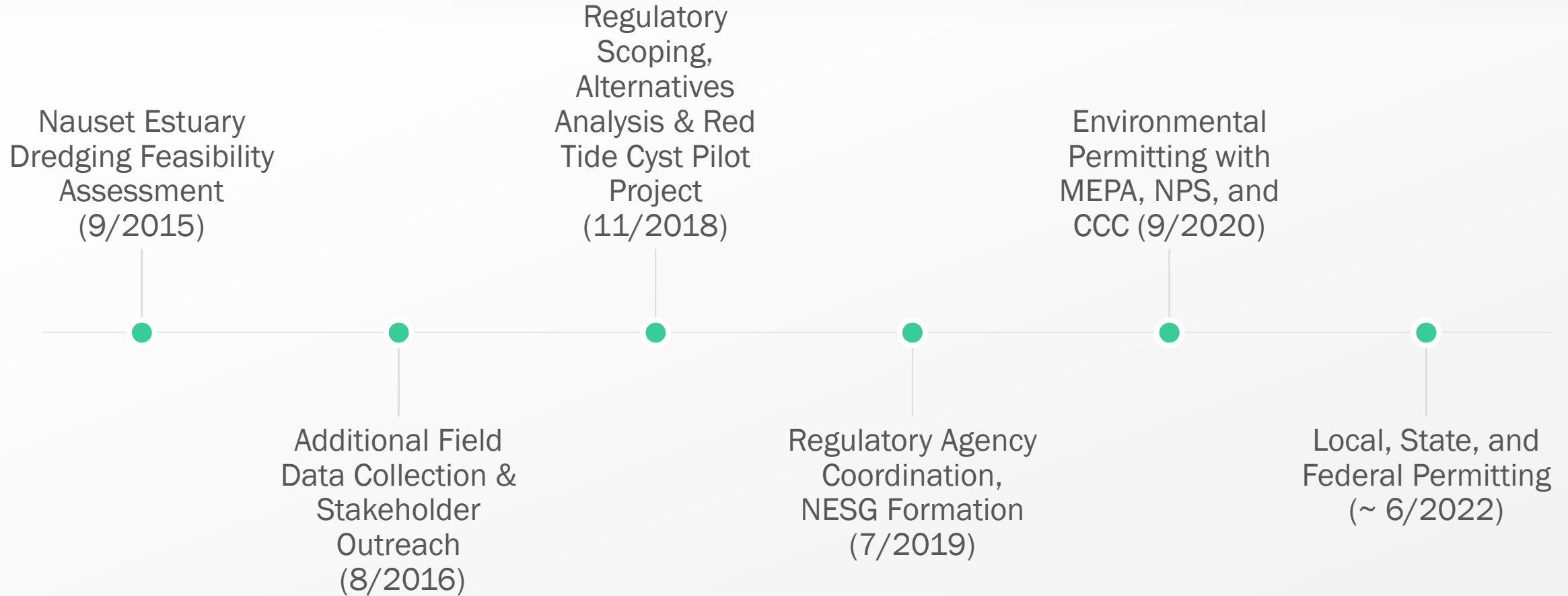


# Nauset Estuary Dredging Project

Citizens Forum - June 29, 2021

# Nauset Estuary Study History



Citizens Forum  
6-29-2021

# MEPA Review of EENF

1. MEPA review is triggered when a proposed project is of a certain nature, size or in a certain location where it could cause Damage to the Environment.
2. MEPA provides opportunities for agency and public review of a proposed project. MEPA role is to make recommendations to Secretary of EEA regarding adequacy of environmental documentation submitted for a proposed project.
3. EENF lays out the project need, existing physical and environmental conditions at the site, alternatives and impacts of those alternatives, and identifies a preferred alternative and mitigation measures.
4. MEPA will solicit comments from regulatory agencies and public and develop Scope for Environmental Impact Report (EIR) that identifies additional studies, field data, analyses to be completed so that MEPA can make a finding that all feasible measures have been taken to avoid or minimize environmental impacts.
5. MEPA review allow 14-day comment period following publication of the project in the Environmental Monitor.



# Anticipated MEPA Comment Period

Assuming EENF is filed by Jul. 30, 2021:

Environmental Monitor Publication – Aug. 11, 2021

Comment Period – Aug. 11 to Aug. 31, 2021



# Project Need & Goals



Source: Cape Cod Times



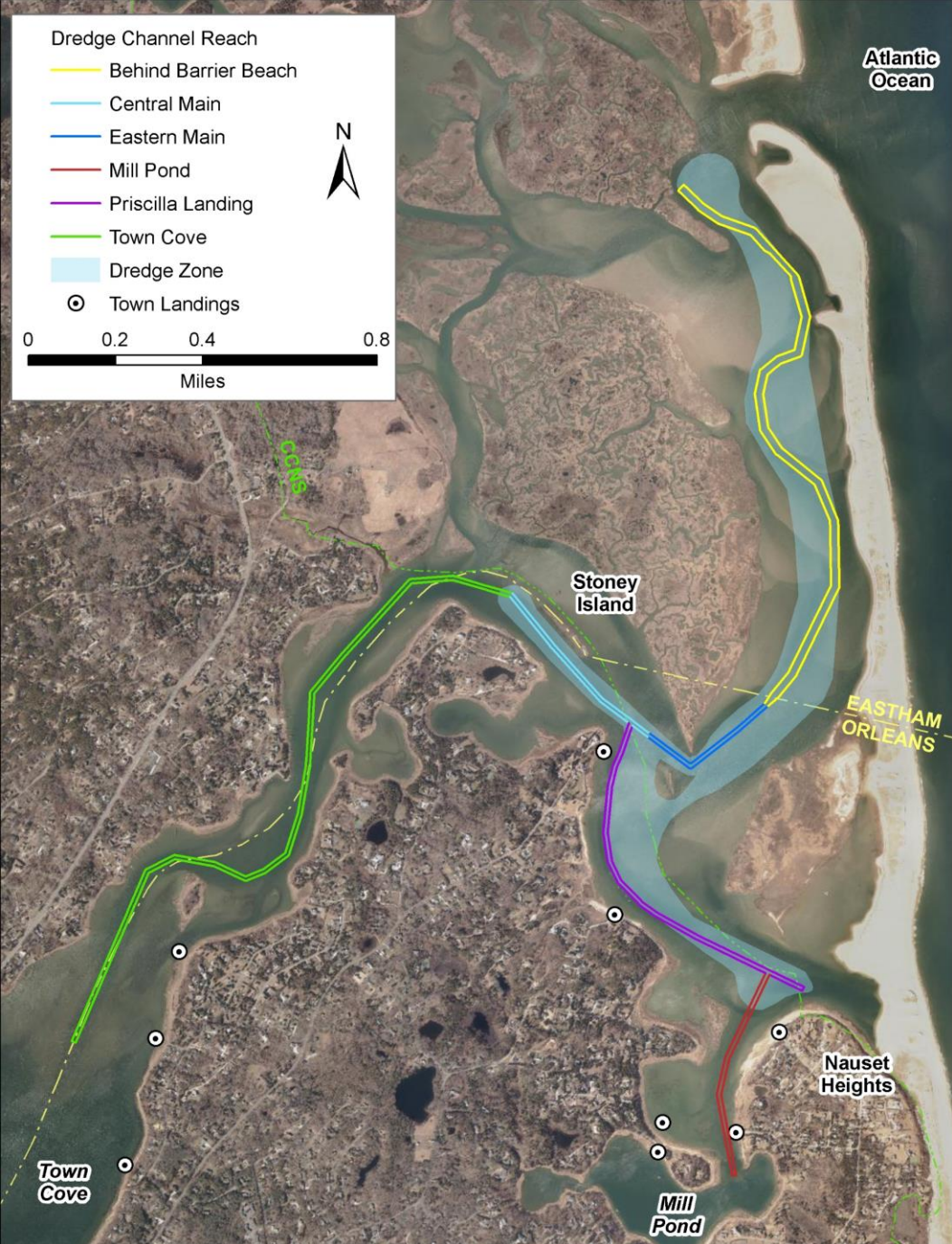
Source: Foursquare

## Improve Navigation and Public Safety

- Commercial Fishermen & Recreational Boaters
- 13 Town Landings, 20 Mooring Fields, Private Docks, Marine Related Businesses

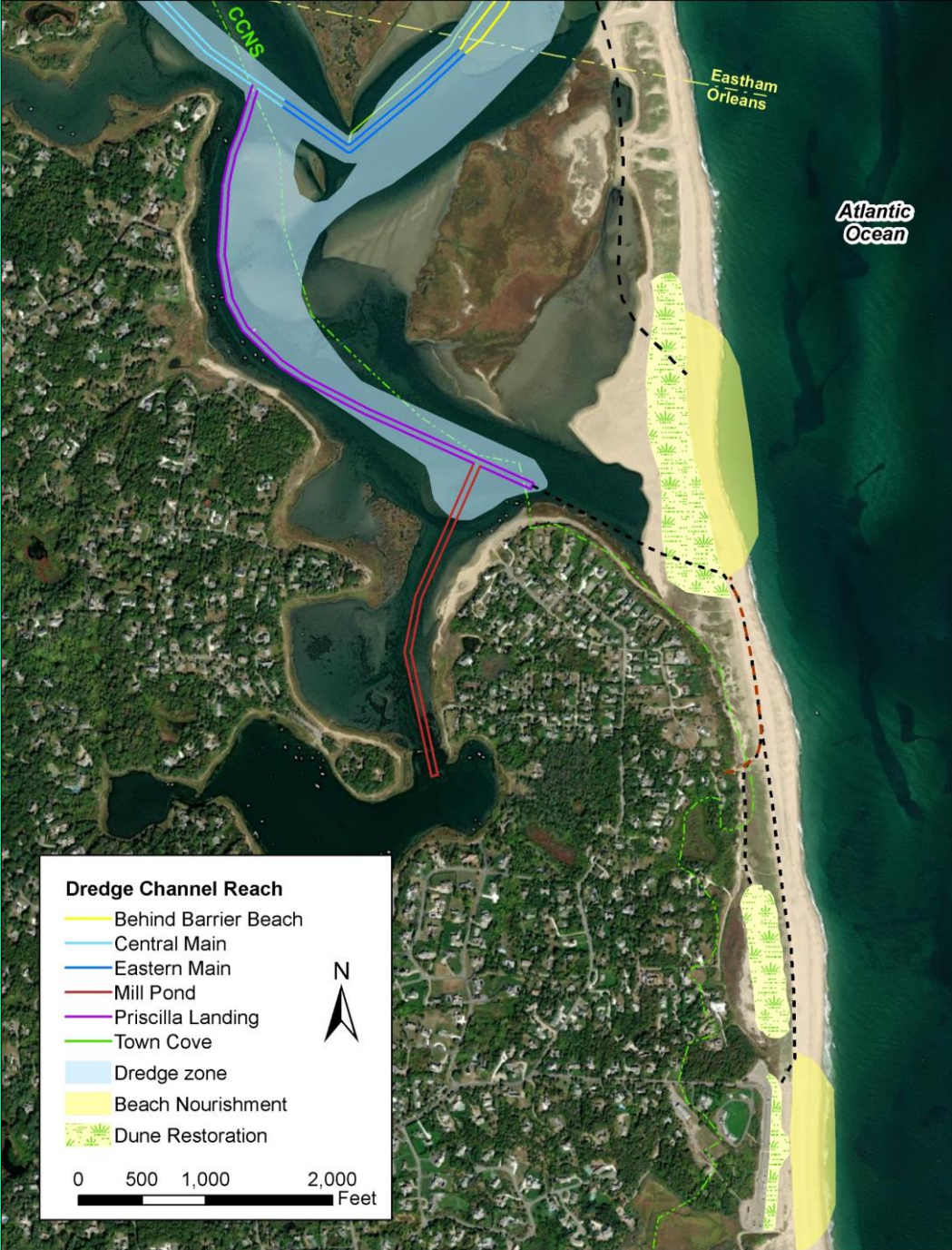


Source: CapeCod.com



# Proposed Project

- Channel from Town Cove to Inlet
- Spur channels to Priscilla Landing and entrance of Mill Pond
- 100 ft wide channel behind barrier beach; 50 ft wide elsewhere
- Dredge depth of -5 ft MLW
- Dredge zone in most dynamic areas
- Dredge volume of 155,560 cubic yards
- Project located in Orleans, Eastham & CCNS
- Considered improvement dredging
- Dredge methods and disposal locations vary by location

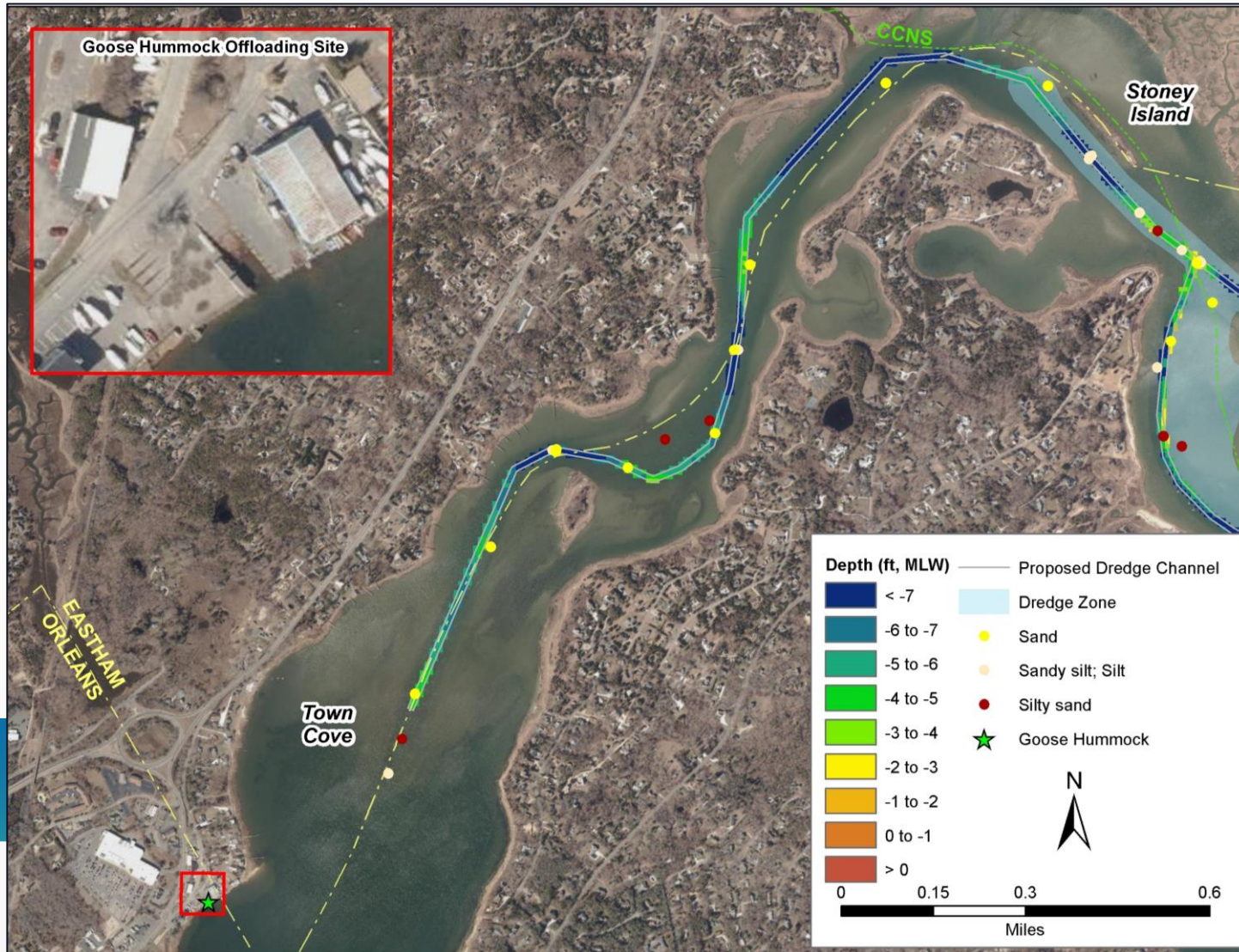


# Disposal Site Alternatives Assessment

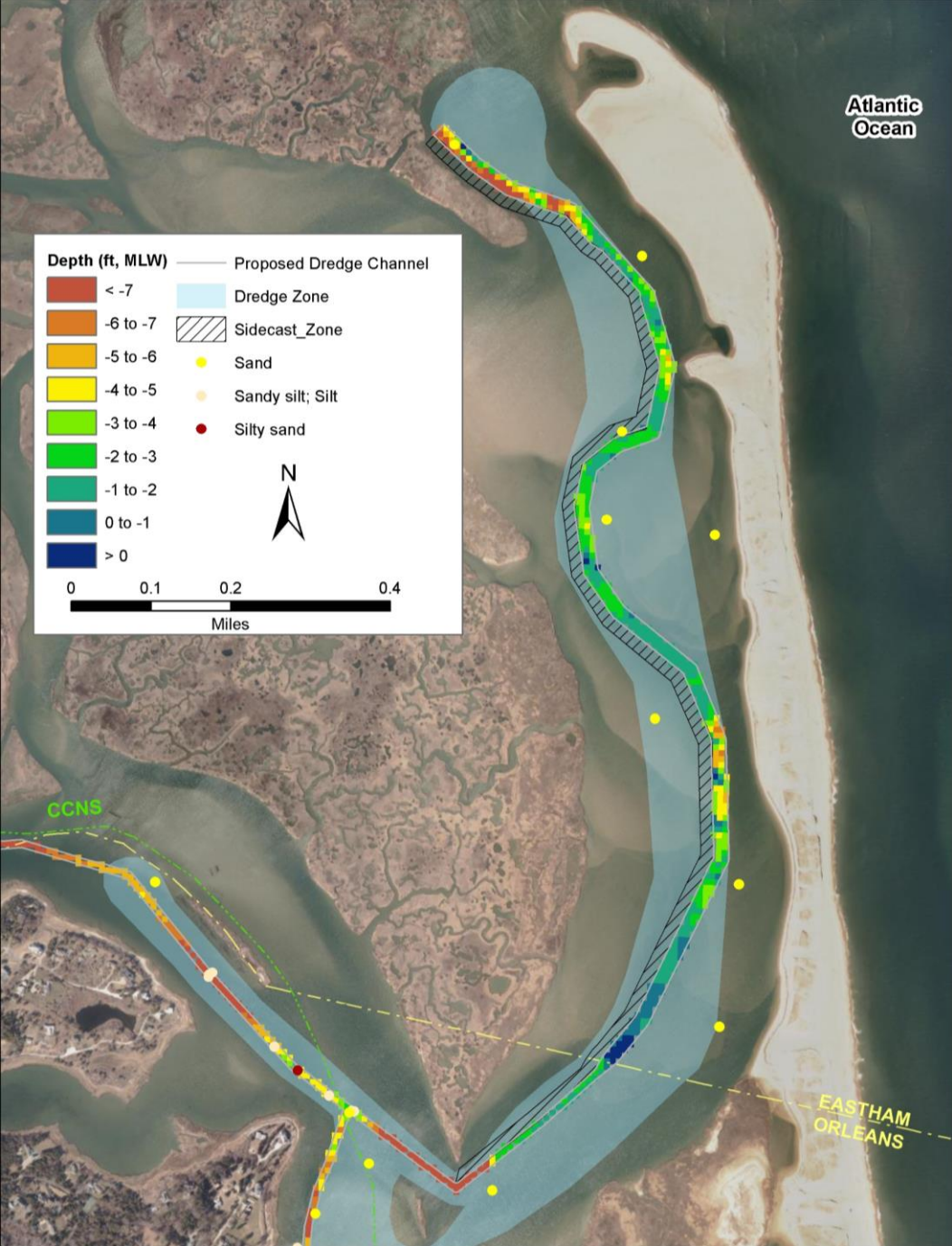
- Evaluated 10 alternatives for disposal of dredge material
- Beach nourishment (2)
- Dune enhancement/restoration (3)
- Sidecast placement into estuary
- Subaqueous placement into salt ponds
- Salt marsh restoration
- Beach nourishment on estuary shorelines
- Upland

Selected disposal sites vary by dredge location

# Town Cove & Central Main Channel Reaches

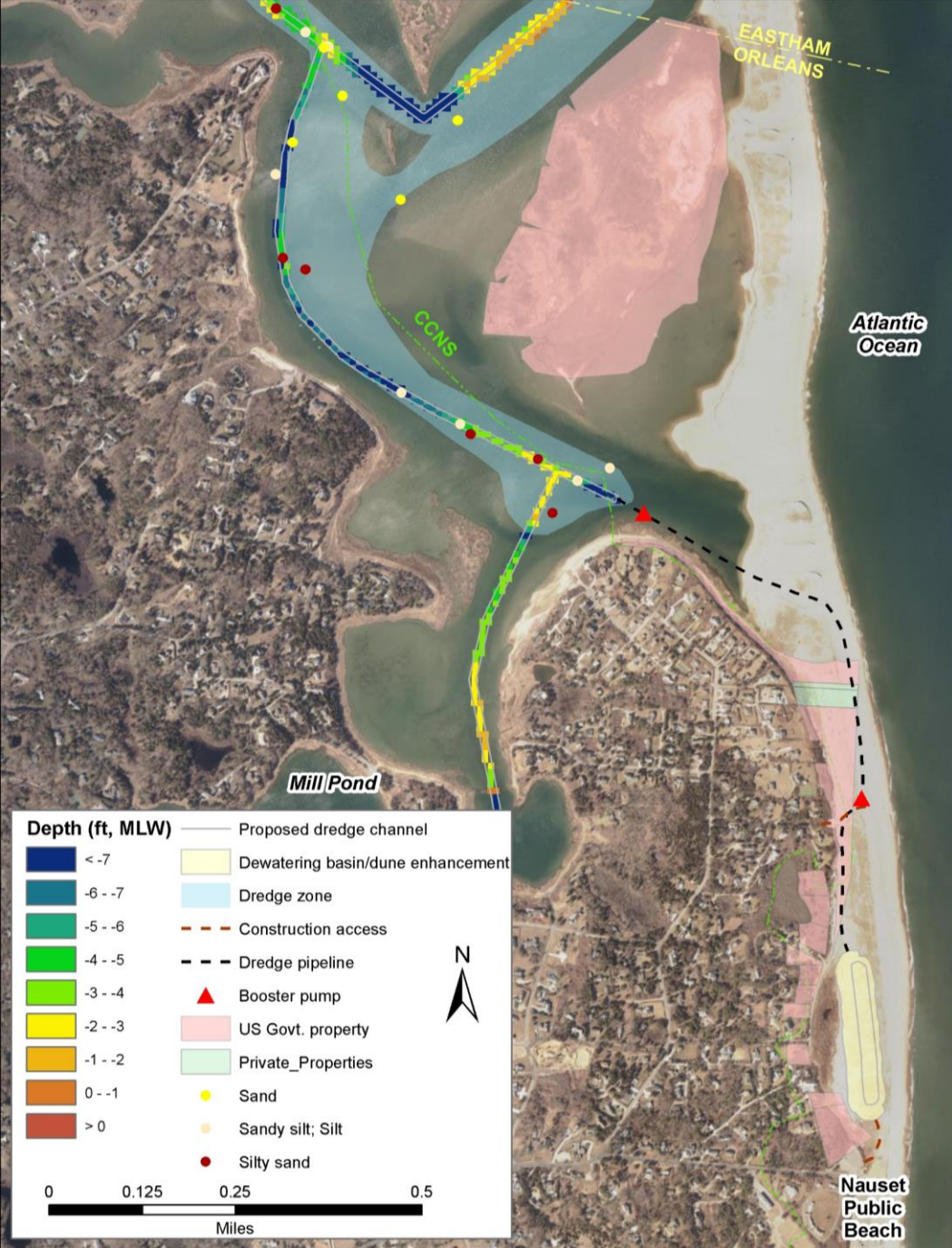


- 9,660 cubic yards
- Predominantly sand
- Mechanical dredge (clamshell to barge)
- Offload to trucks at Goose Hummock Town Landing
- Upland stockpile at permitted sites in South Dennis
- Expected maintenance dredging ~ 10-15 yrs
- 2 to 3 month duration
- mid-Oct. to mid-Jan.
- ~ 10 truck loads per day



## Behind the Barrier Beach & Eastern Main Channel Reaches

- 119,830 cubic yards
- Exclusively sand
- Hydraulic cutter suction sidecast dredge
- Sidecast sand 60-80 ft west of channel
- 200 ft 'no dredge zone' off back of barrier beach
- Expected maintenance dredging every year  
~ 60,000 cubic yards
- 3 month duration
- mid-Oct. to mid-Jan.



# Priscilla & Mill Pond Channels

- 26,080 cubic yards
- Silty sand (79% to 90% sand)
- Hydraulic cutter suction pipeline dredge
- Pump to dewatering basin on Town of Orleans property north of Nauset Public Beach
- 50 ft offset from eelgrass beds
- Expected maintenance dredging ~ 8-10 yrs
- 2.25 to 3 month duration
- mid-Oct. to mid-Jan.



# Priscilla & Mill Pond Dredge Pipeline

- Priscilla channel to dewatering basin: 3,185 linear ft
- Pipeline on property owned by Town of Orleans, US Govt, and 2 private properties
- 14 inch inner diameter; 16 inch outer diameter
- Placed on coastal beach and dune resources by front end loader
- Pipeline access either floated from estuary or from Nauset Public Beach
- Dredge will require 2 booster pumps (i) on barge near Priscilla Landing, (ii) on beach at bottom of Callanan's Pass
- Expected dredge duration 3 weeks
- Expected hours of operation 7 AM to 3 PM
- mid-Oct. to mid-Jan



# Dewatering Basin & Dune Enhancement

- Dewatering basin/berms cover 6.8 acres of coastal dune
- Bottom elevation 3.3 ft NAVD88
- Berms 13.7 ft high (at 17 ft NAVD88)
- 28,000 cy in berms/22,000 cy stockpiled
- Footpath from Surf Path will be closed; other paths to remain open
- Dredge material will remain as core of dune
- Restore to pre-existing grades & build secondary dune for added coastal resiliency
- Revegetate with beach grass
- Expect 1 month to create dewatering basin & 3 weeks to restore dune and build secondary dune
- Expected hours of operation 7 AM to 3 PM
- mid-Oct. to mid-Jan

# Local Dewatering Basins



Centerville River Dredging

Craigville Beach Dewatering Area



# Local Dewatering Basins



Woods Hole Channel Dredging

Menauhant Beach Dewatering Basin



# Local Dewatering Basins



# Mitigation and Monitoring

- Shellfish relay proposed prior to dredging
- 50 ft offset from eelgrass beds
- 200 ft 'no dredge zone' off back of barrier beach
- Restore grades and vegetation in all disturbed areas
- Dune enhancement via new secondary dune
- Mid-Oct. to mid-Jan. construction period
- Erosion & sedimentation controls at construction and staging areas
- Pre- and post-dredge bathymetric surveys
- ID channel coordinates for dredging contractor
- Pre-construction staking
- Quarterly monitoring/reporting of dune enhancement area for 3 years





Thank you

Question and Answer Session

Submit Written Questions/Comments to:

[communityexchange@eastham-ma.gov](mailto:communityexchange@eastham-ma.gov)

[nausetestuary@town.orleans.ma.us](mailto:nausetestuary@town.orleans.ma.us)

No Later Than July 2, 2021