

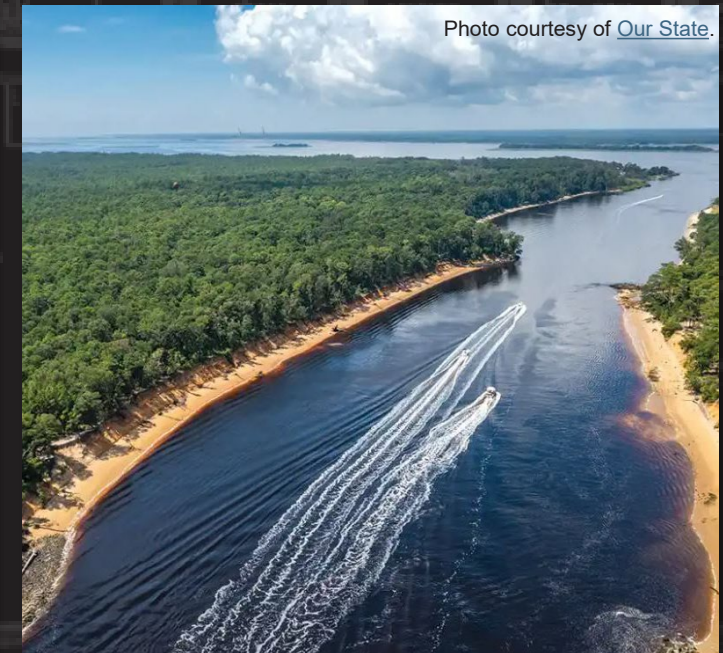
SNOW'S CUT SHORELINE STABILIZATION AND EROSION PROTECTION

Public Scoping Meeting Presentation

Presenter: Justin Bashaw
Biologist, Env. Res. Section
USACE, Wilmington District

Date: 24 June 2024, 5:00pm EDT

Locations: Carolina Beach State Park
Virtual (WebEx)



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INTRODUCTIONS



Image courtesy of [USACE](#).



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AGENDA



- Authorization and Funding
- Snow's Cut Land Use
- Historic Shoreline Change
- Existing Measures
- Proposed Project
- Environmental Resources and Compliance
- Project Schedule
- Comment Submittal and Questions



Google Earth

Map courtesy of [Google Earth](https://www.google.com/earth/).



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AUTHORIZATION AND FUNDING



■ Authorization

■ Snow's Cut – Atlantic Intracoastal Waterway (AIWW)

- Rivers and Harbors Act of 1912 (P.L. 62-241)
- Rivers and Harbors Act of 1927 (P.L. 69-560)
- Rivers and Harbors Act of 1930 (P.L. 71-520)
- Rivers and Harbors Act of 1937 (P.L. 75-392)
- Rivers and Harbors Act of 1948 (P.L. 80-858)

■ Funding

■ FY 2024 Bipartisan Infrastructure Law

- Funds in the amount of \$15,000,000 will be used to conduct planning and design, environmental compliance, and construction to stabilize the federally-owned land adjacent to Snow's Cut, part of the Atlantic Intracoastal Waterway (AIWW), NC.

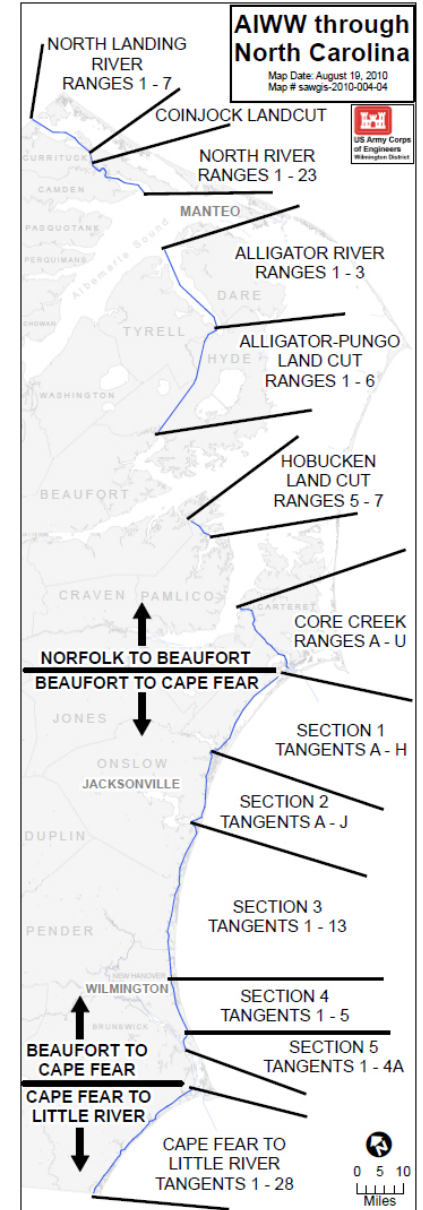


Image courtesy of [USACE](https://www.usace.army.mil/).

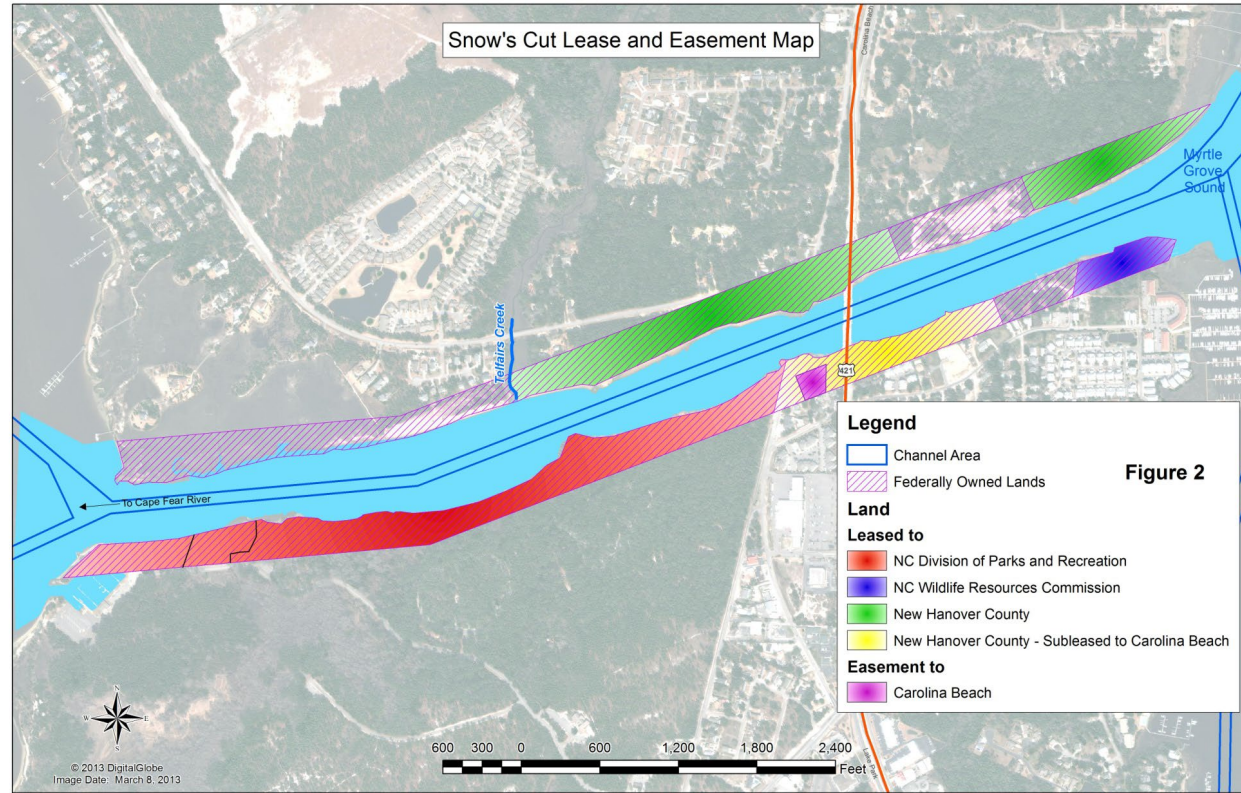
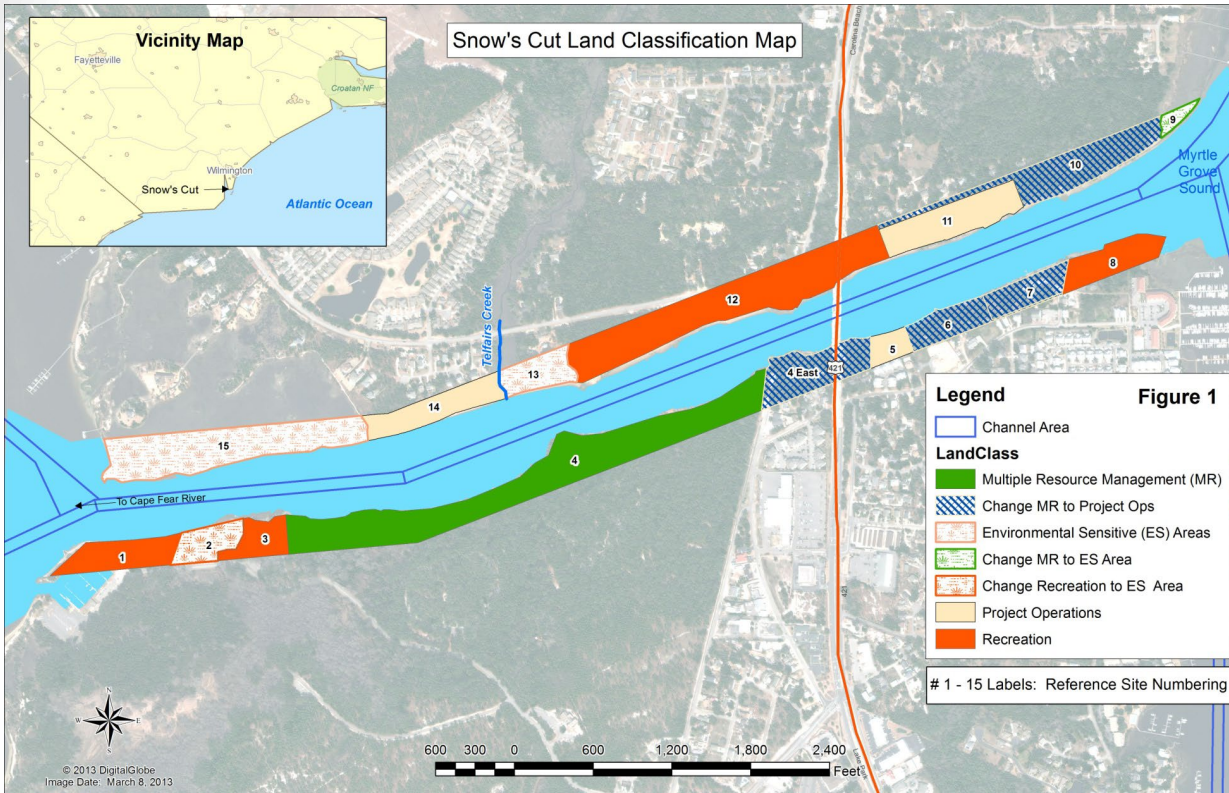


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SNOW'S CUT LAND USE



- Constructed between 1929-1931. Purpose is to provide safe inland navigation for both commercial and pleasure crafts moving northwardly and southwardly along the coast of North Carolina.



Figures 1 and 2 of [USACE Environmental Assessment, Master Plan Supplement, Snow's Cut](#). Current as of 2014. Updated land use maps in development.



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HISTORIC SHORELINE CHANGE

- Between 1953 and 2013, on average, 1,625 feet of bank eroded from the northern shoreline and 1,864 feet of bank eroded from the southern shoreline.

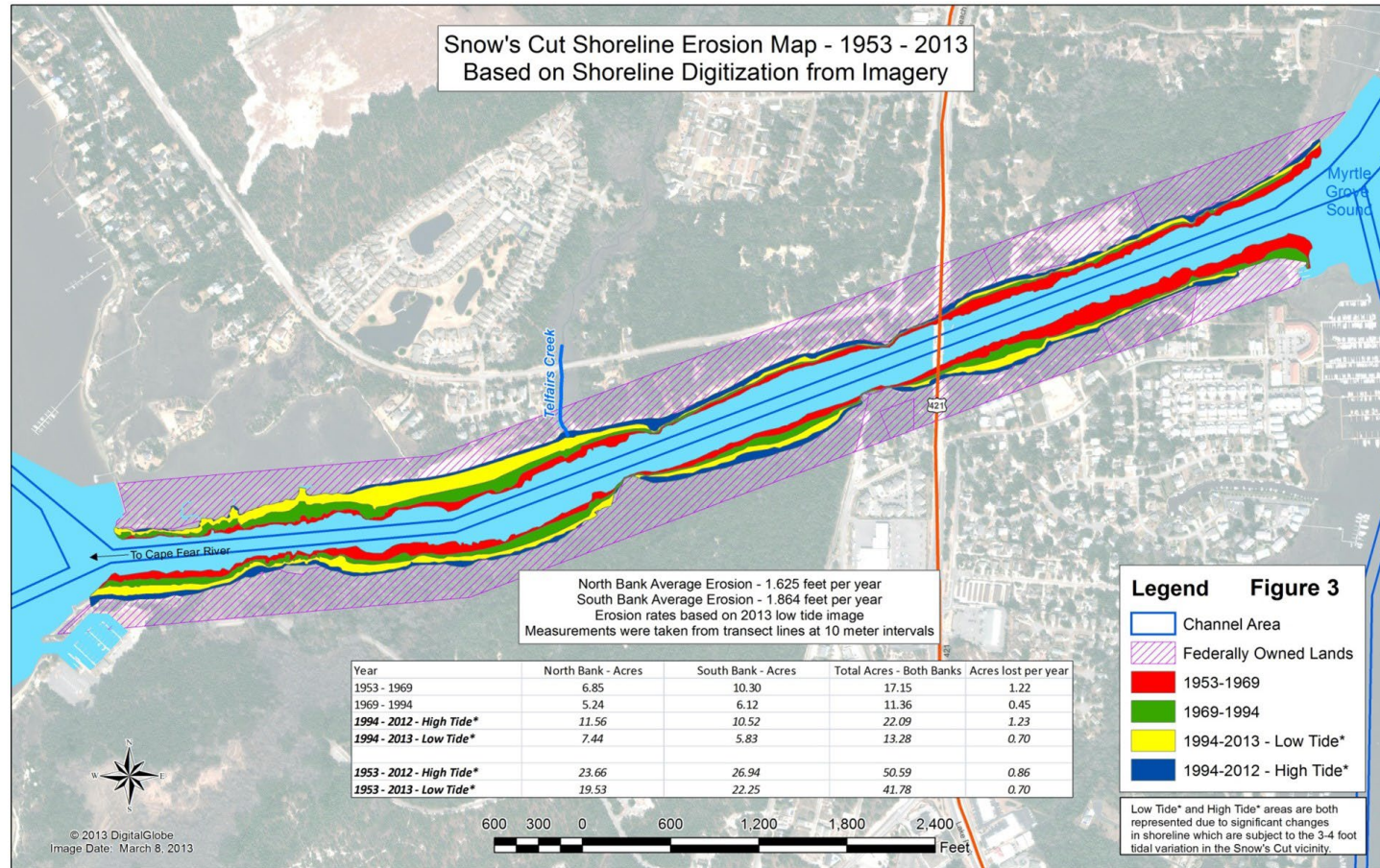


Figure 3 of USACE Environmental Assessment, Master Plan Supplement, Snow's Cut. Current as of 2013. Updated shoreline change map development.

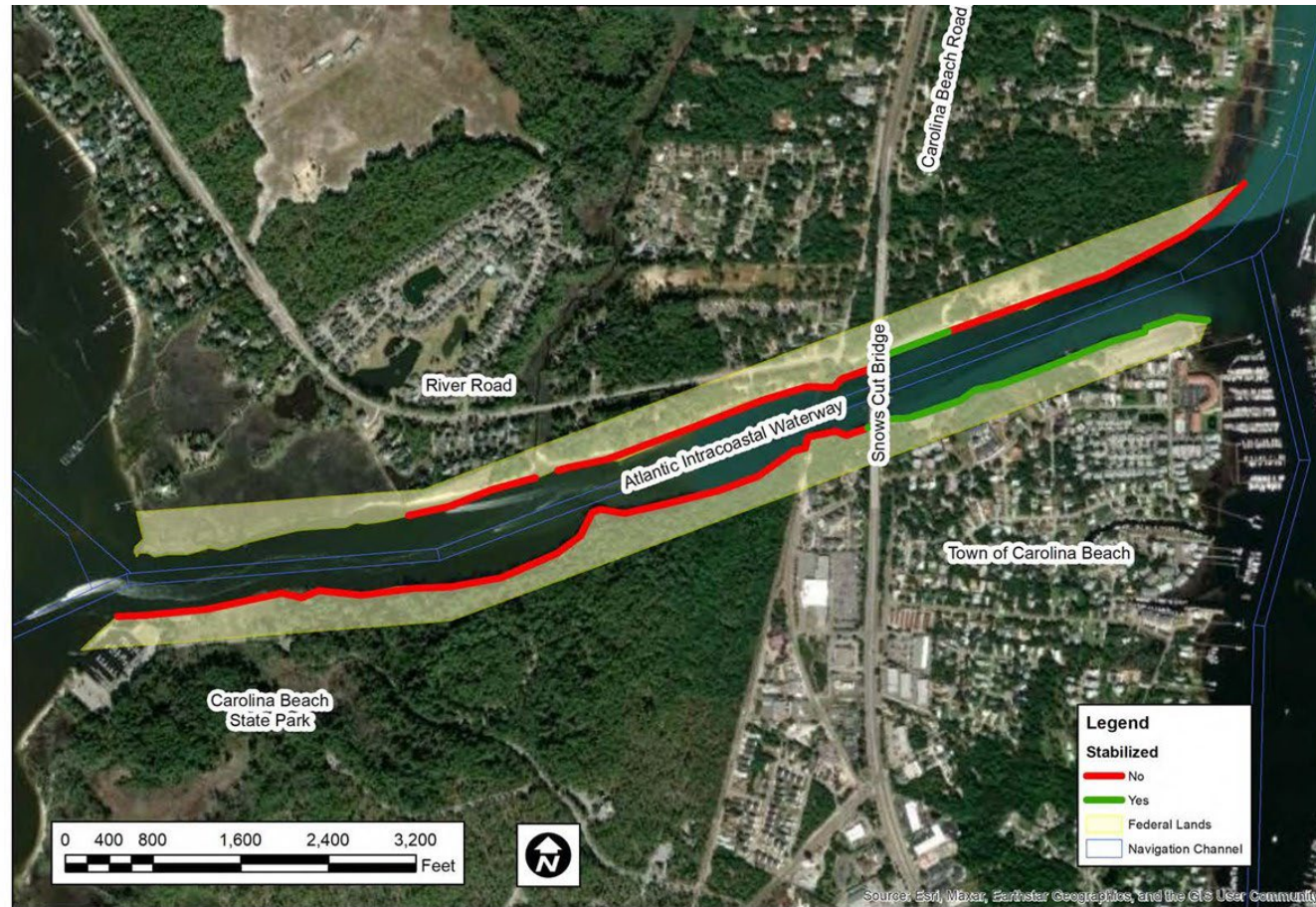


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EXISTING MEASURES

- USACE shoreline stabilization and erosion protection most recently occurred in March 2018, east of Snow's Cut Bridge.



Source: Ed, Max, Earthstar Geographics, and the GIS User Community



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PROPOSED PROJECT



- Current project will focus on four reaches:

- Reach 1 – Snow’s Cut Park (closed)
- Reach 2 – Dredged Material Placement Area
- Reach 3 – Carolina Beach State park (north)
- Reach 4 – Carolina Beach State Park (south)



SNOW'S CUT EROSION PROTECTION PROJECT

REACH 1 - SNOW'S CUT PARK NORTH BANK (CLOSED)
 PROPOSED DESIGN: 2,200 FEET OF TOE REVETMENT WITH NATURAL BANKS

REACH 2 - DREDGED MATERIAL PLACEMENT AREA
 PROPOSED DESIGN: 1,100 FEET OF TOE REVETMENT WITH NATURAL BANKS



REACH 3 - CAROLINA BEACH STATE PARK (NORTH)
 PROPOSED DESIGN: 1,600 FEET OF LIVING SHORELINE AND NATURAL BANKS



REACH 4 - CAROLINA BEACH STATE PARK (SOUTH)
 PROPOSED DESIGN: 2,200 FEET OF CONCRETE WAVE ATTENUATORS WITH WETLAND VEGETATION



GREEN - SOFTER TECHNIQUES **GRAY - HARDER TECHNIQUES**

Living Shorelines *Coastal Structures*

- VEGETATION ONLY** - Provides a buffer to upland areas and breaks small waves. Suitable for low wave energy environments.
- EDGING** - Added structure holds the toe of existing or vegetated slope in place. Suitable for most areas except high wave energy environments.
- SILLS** - Parallel to vegetated shoreline, reduces wave energy, and prevents erosion. Suitable for most areas except high wave energy environments.
- BREAKWATER** - (vegetation optional) - Offshore structures intended to break waves, reducing the force of wave action, and encourage sediment accretion. Suitable for most areas.
- REVETMENT** - Lays over the slope of the shoreline and protects it from erosion and waves. Suitable for sites with existing hardened shoreline structures.
- BULKHEAD** - Vertical wall parallel to the shoreline intended to hold soil in place. Suitable for high energy settings and sites with existing hard shoreline structures.



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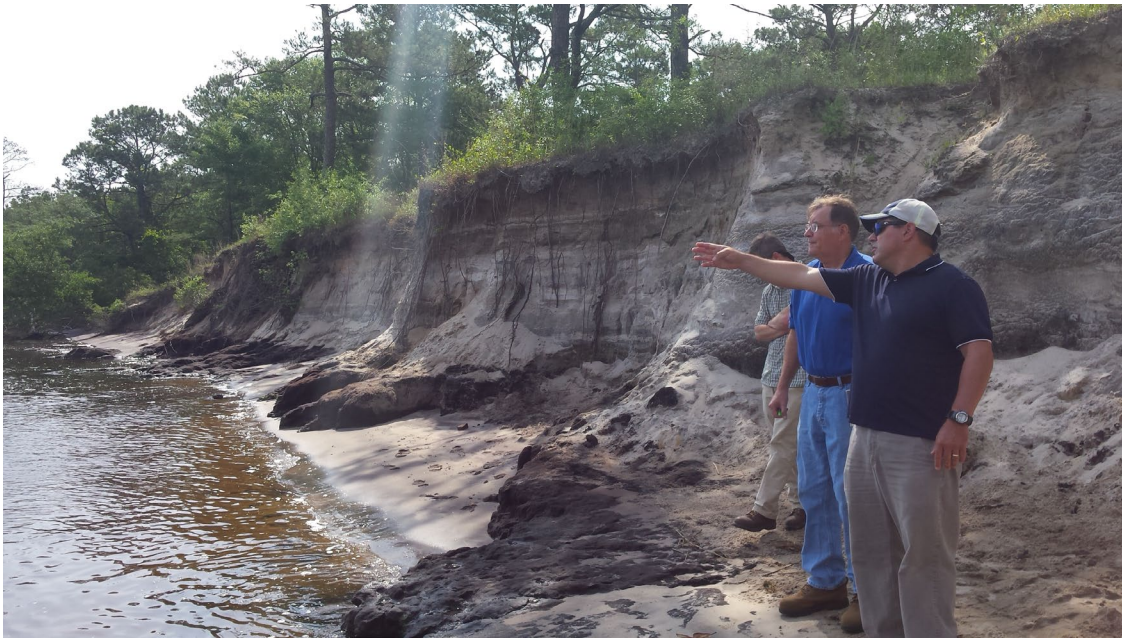
ENVIRONMENTAL RESOURCES

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■ Terrestrial and Aquatic Impacts

- For all project areas, minor vegetative clearing may be required to accommodate necessary equipment and to allow for proper construction of protective measures. Similarly, for all project areas, minor portions of open water may be permanently impacted due to placement of measures below the waterline.



USACE Photos, May 11, 2017 (left) and January 31, 2018 (right).



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ENVIRONMENTAL RESOURCES



- Common Fishes
 - Bluefish (*Pomatomus saltatrix*), trouts (*Cynoscion regalis* or *C. nebulosus*), red drum (*Sciaenops ocellatus*), mullets (*Mugil cephalus* or *M. curema*), flounder (*Paralichthys dentatus*), croaker (*Micropogonias undulatus*), sheepshead (*Archosargus probatocephalus*) and spot (*Leiostomus xanthurus*).
- Essential Fish Habitat (EFH)
 - Snapper/Grouper, coastal migratory pelagics
- Habitat Areas of Particular Concern (HAPC)
 - Penaeid shrimp
- Primary Nursery Areas (PNA)
 - None in project area



Image courtesy of [NOAA Fisheries' Essential Fish Habitat Mapper](#).

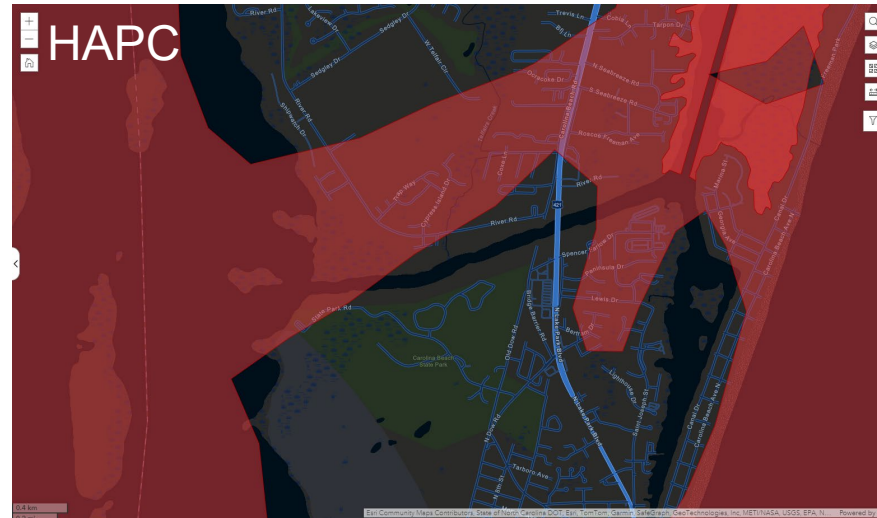


Image courtesy of [NOAA Fisheries' Essential Fish Habitat Mapper](#).

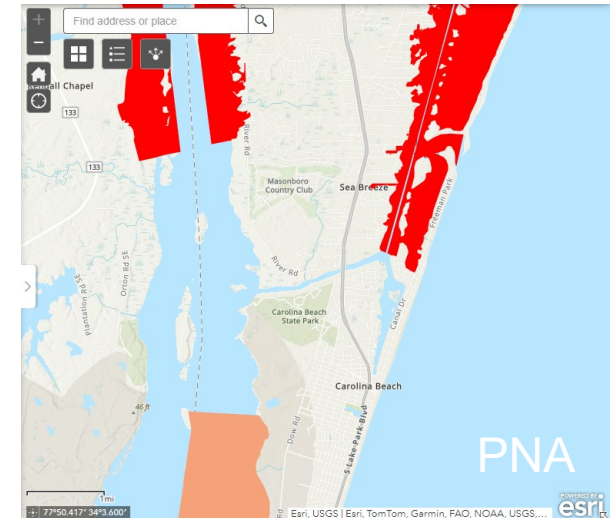


Image courtesy of [NCDEQ Interactive Map for Current Rules](#).



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ENVIRONMENTAL RESOURCES



Threatened and Endangered Species

- West Indian Manatee
 - Found along entire southeastern United States. May be present in project area.
- Atlantic and Shortnose Sturgeons
 - Atlantic sturgeon critical habitat may overlap with project area. No shortnose sturgeon critical habitat in project area.
- Northern Long-eared and Tricolored Bats
 - Ranges may overlap with project area.

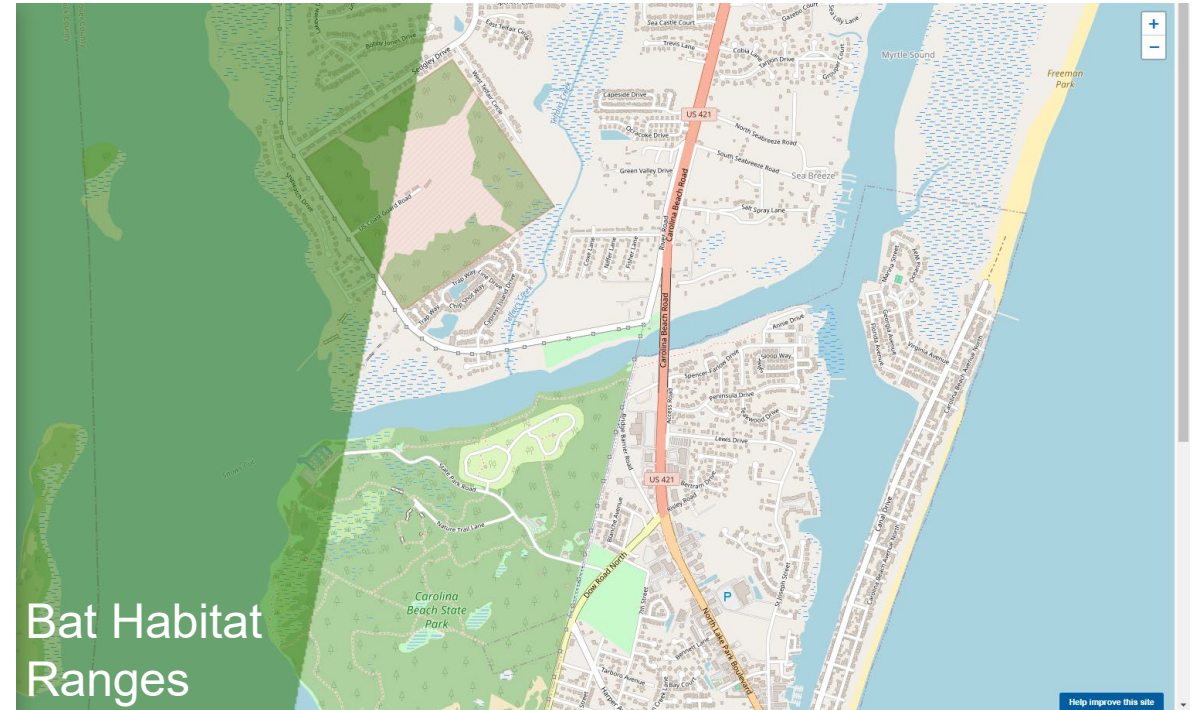
SturgeonAtlantic_AtlanticSubspecies_CarolinaDPS201
70817



Atlantic Sturgeon
Critical Habitat

NOAA NGDC, Esri, Garmin, NaturaVue | State of North Carolina DOT, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc., METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS
Powered by Esri

Image courtesy of [NOAA Fisheries' Critical Habitat Mapper](#).



Bat Habitat
Ranges

Help improve this site

Image courtesy of [USFWS](#).



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ENVIRONMENTAL RESOURCES



■ Cultural Resources

- Within or near the proposed project area are sites 31NH79, 31NH496, 31NH540, 31NH541, and 31NH542 (all unassessed with respect to National Register of Historic Places eligibility).
- Previous surveys in the vicinity were conducted in 1981 (Baker), 2004 (Kimmel), 2007 (Kimmel), and 2017 (Hughes).

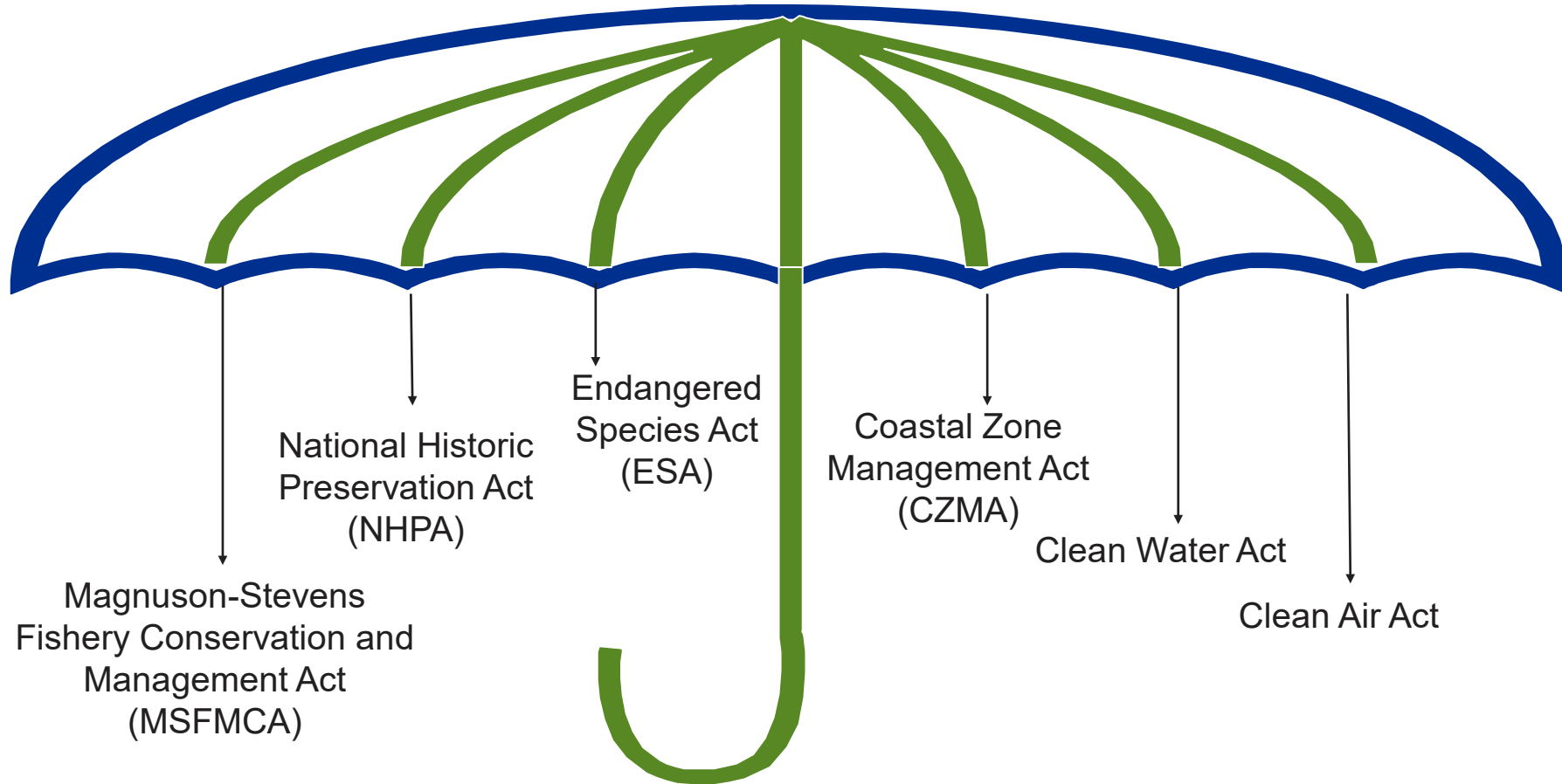


USACE Photos, May 22, 2017.



ENVIRONMENTAL COMPLIANCE

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)





ENVIRONMENTAL COMPLIANCE



- **Magnuson-Stevens Fishery Conservation and Management Act (MFMCA) (Essential Fish Habitat (EFH))**
 - Coordination to occur with the National Marine Fisheries Service (NMFS).
 - An EFH assessment will be included in the EA.
- **National Historic Preservation Act (NHPA)**
 - Coordination for shoreline stabilization and erosion protection measures constructed in 2018 coordinated with the NC State Historic Preservation Office (SHPO) in August 2017 under ER 17-1460. Previous coordination (September 2013) in the Snow's Cut vicinity occurred under ER 13-1609.
 - Coordination under ER 17-1460 to continue and may include additional surveys prior to construction.
- **Endangered Species Act (ESA)**
 - Coordination to occur with the US Fish and Wildlife Service (USFWS) and NMFS.
 - Informal consultation anticipated.
- **Coastal Zone Management Act (CZMA)**
 - A Federal Consistency Determination will be submitted to the NC Division of Coastal Management.
- **Clean Water Act**
 - A 401 Water Quality Application will be submitted to the NC Division of Water Resources.
 - Proposed project will be evaluated in accordance with Section 404(b)(1).
- **Clean Air Act**
 - The EA will address green house gas emissions associated with proposed construction activities.



PROJECT SCHEDULE



Description	Date
Funding Received	November 30, 2023
Surface Penetrating Testing Activities	May 2024
NEPA / Permitting Process	June 2024 - July 2025
Scoping Period	June 7, 2024 - July 8, 2024
Public Scoping Meeting / Agency Scoping Meeting	June 24, 2024 / June 25, 2024
DRAFT Environmental Assessment Available for Public Review	March 2025
Design Completed	June 2025
Construction Contract Awarded	December 2025
Begin Construction	January 2026
End Construction	September 2026

Note: Future dates subject to change.



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COMMENT SUBMITTAL AND QUESTIONS

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THANK YOU for your interest and attention!

Please provide scoping comments to Justin Bashaw (justin.p.bashaw@usace.army.mil)
by **July 8, 2024**.

All comments will be considered during development of the DRAFT Environmental Assessment.



USACE Photo, January 31, 2018.