# HAMPTON ROADS BENEFICIAL USE OF DREDGED MATERIAL PROJECT
# CAP 204

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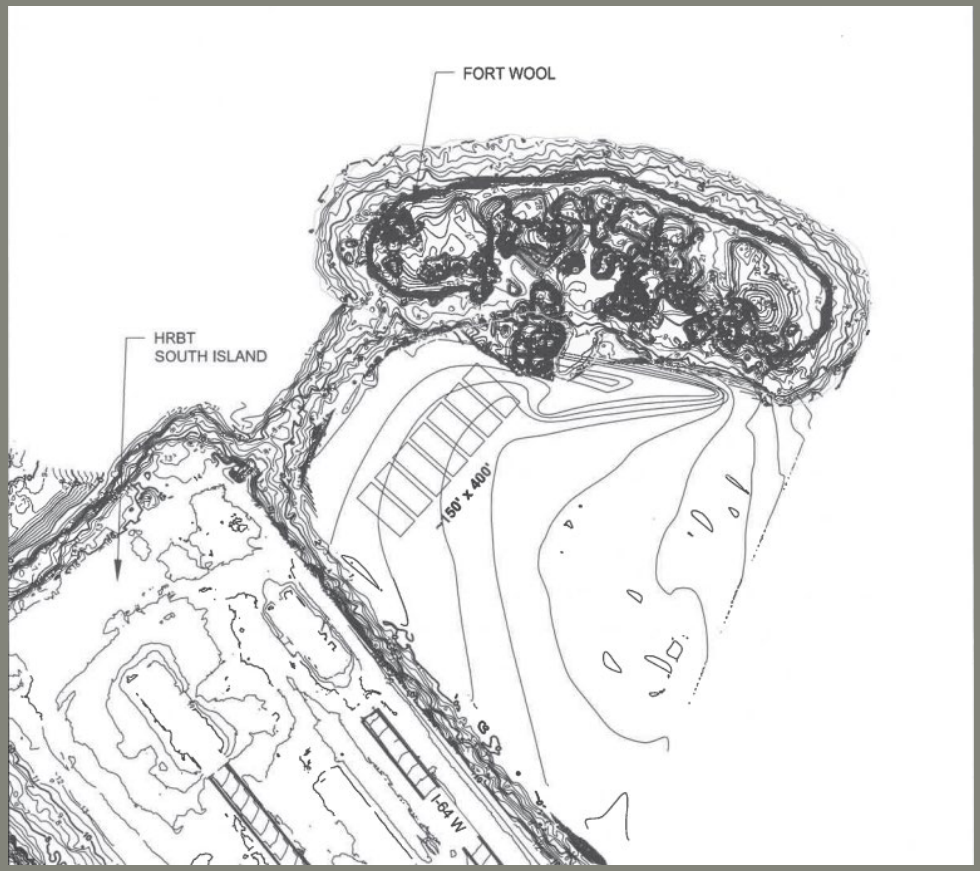
# Project Background

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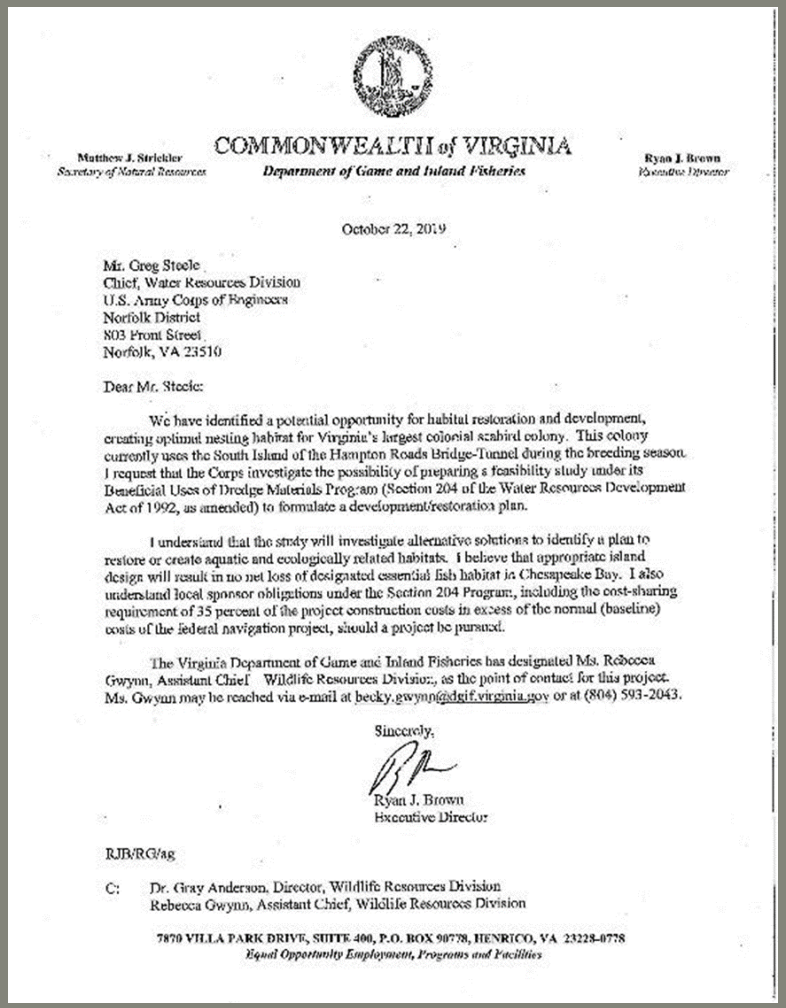

COMMONWEALTH of VIRGINIA

Department of Game and Inland Fisheries

Matthew J. Strickler
Secretary of Natural Resources

Ryan J. Brown
Executive Director

October 22, 2019

Mr. Greg Steele
Chief, Water Resources Division
U.S. Army Corps of Engineers
Norfolk District
803 Front Street
Norfolk, VA 23510

Dear Mr. Steele:

We have identified a potential opportunity for habitat restoration and development, creating optimal nesting habitat for Virginia's largest colonial seabird colony. This colony currently uses the South Island of the Hampton Roads Bridge-Tunnel during the breeding season. I request that the Corps investigate the possibility of preparing a feasibility study under its Beneficial Uses of Dredge Materials Program (Section 204 of the Water Resources Development Act of 1992, as amended) to formulate a development/restoration plan.

I understand that the study will investigate alternative solutions to identify a plan to restore or create aquatic and ecologically related habitats. I believe that appropriate island design will result in no net loss of designated essential fish habitat in Chesapeake Bay. I also understand local sponsor obligations under the Section 204 Program, including the cost-sharing requirement of 35 percent of the project construction costs in excess of the normal (baseline) costs of the federal navigation project, should a project be pursued.

The Virginia Department of Game and Inland Fisheries has designated Ms. Rebecca Gwynn, Assistant Chief – Wildlife Resources Division, as the point of contact for this project. Ms. Gwynn may be reached via e-mail at becky.gwynn@dgif.virginia.gov or at (804) 593-2043.

Sincerely,

Ryan J. Brown
Executive Director

RJB/RG/ag

C: Dr. Gray Anderson, Director, Wildlife Resources Division
Rebecca Gwynn, Assistant Chief, Wildlife Resources Division

7870 VILLA PARK DRIVE, SUITE 400, P.O. BOX 90778, HENRICO, VA 23228-0778
*Equal Opportunity Employment, Programs and Facilities*

**Letter of Intent**
**October 22, 2019**

**Requests USACE investigate preparing a feasibility study to create optimal nesting habitat for the seabird colony.**

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## Continuing Authorities Program (CAP 204)

**Authority and Scope:** Section 204 authorizes the U.S. Army Corps of Engineers to implement projects for the protection, restoration and creation of aquatic and ecologically related habitats, including wetlands, or to reduce storm damage to property, in connection with dredging for the construction or operations and maintenance of an existing authorized Federal navigation project. There is a $10.0 million federal project limit.

**Federal Interest Determination (FID)** - A District drafted a Federal Interest Determination (FID) presenting a determination that there is a Federal interest in pursuing a feasibility study to determine a viable solution within the appropriate CAP 204 authority.

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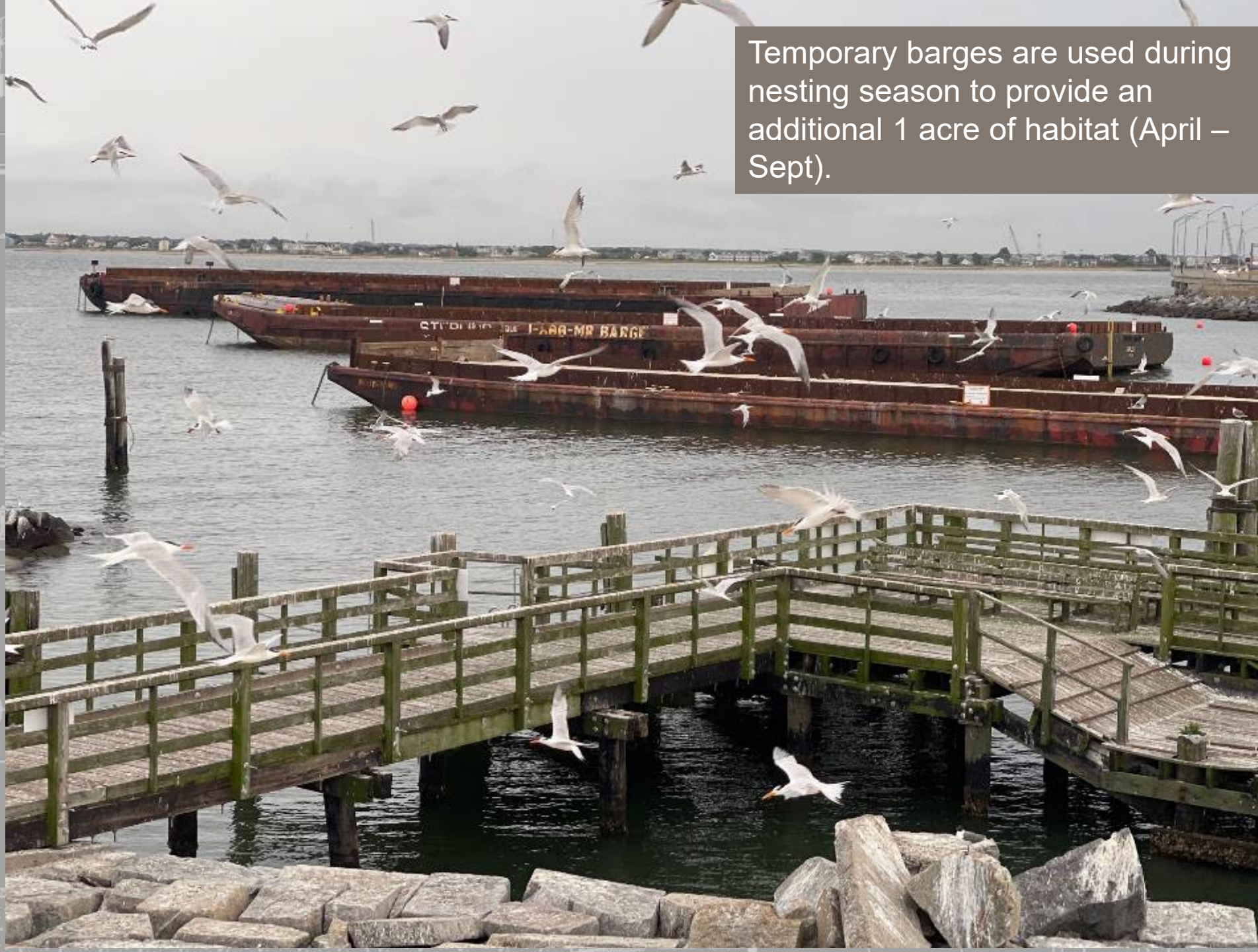
# Temporary Location: Fort Wool


Fort Wool provides 1.5 acre of nesting habitat for the seabird colony.




Temporary barges are used during nesting season to provide an additional 1 acre of habitat (April – Sept).

# HAMPTON ROADS BENEFICIAL USE OF DREDGED MATERIAL PROJECT

## PLANNING CONSIDERATIONS

- Distance from Highway
- Depth contours for quantities
- U.S. Navy Air Space/ Joint Base Langley-Eustis Air Space
- Distance from Fort Wool
- Public and private shellfish grounds/leases
- Pumping Distance
- Current and Velocities/Sea Level Rise
- Absence of Submerged Aquatic Vegetation

## BIOLOGICAL REQUIREMENTS

- **Slope/Elevation** allow some washover but withstand sea level rise
- **Habitat Size** 10-12 acres
- **Accessibility** Ability to deploy attractants and do maintenance
- **Distance from Mammalian Predators** 2.5km from shore
- **Distance from current site** ≤21 km due to seabird site fidelity
- **Substrate Composition** sand, gravel, shell

# EXAMPLE HABITAT

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# KEY ENGAGEMENT DATES:

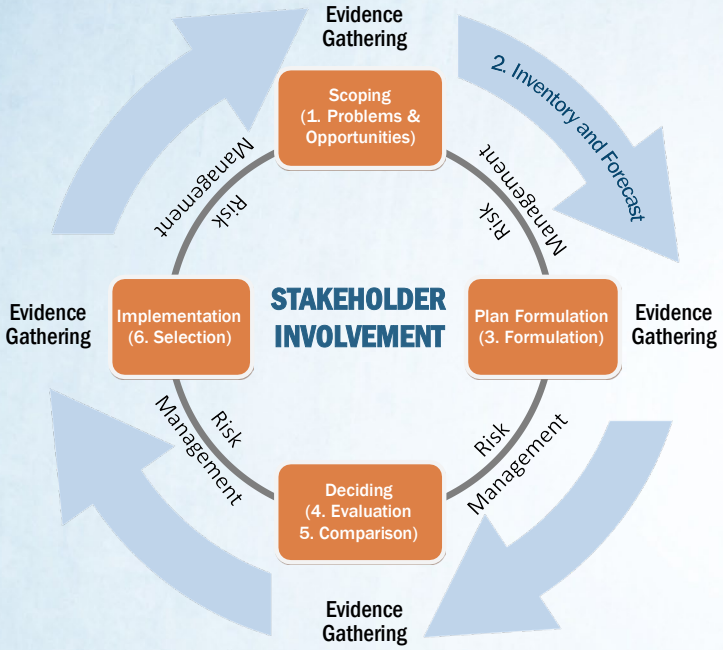
| Date | Activity |
|---|---|
| 4/28/2022 | Stakeholder Webinar (POOCs) |
| 6/27/2022 | Site Visit to Fort Wool |
| 7/08/2022 | Interagency Meeting |
| 8/01/2022 | Engineering Site Visit |
| 8/17/2022 | Scoping Meeting |
| 8/29/2022 | Interagency Meeting |
| 9/21/2022 | Launch Concept Catalog for stakeholder input |
| 10/07/2022 | Alternatives Measures Workshop |
| 01/18/2023 | Interagency Meeting |
| 02/08/2023 | Engagement with USAF |
| 03/13/2023 | Engagement with VMRC by sponsor |
| 03/14/2023 | Engagement with USN |
| 04/24/2023 | Interagency Meeting |
| 05/08/2023 | Interagency Meeting |

# FEASIBILITY SCHEDULE

| CW Milestone Code | MILESTONE | PDT DATES |
|---|---|---|
| CW190 | Tentatively Selected Plan (TSP) | 01 June 2023 |
| CW150 | Draft Report Submittal | 10 August 2023 |
| CW250 | Draft Public Review | 30 August 2023 |
| CW 160 | Final Report Submittal | 01 November 2023 (01 March 2024 - P2 Contingency Date) |
| CW170 | Approved Final Report | 01 December 2023 (10 May 2024 P2 Contingency date) |

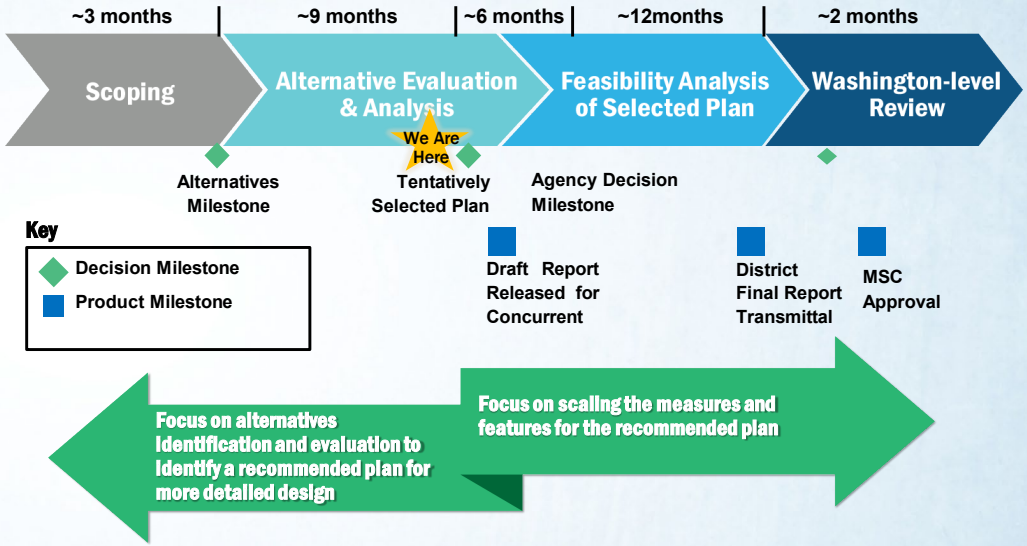
# HAMPTON ROADS BENEFICIAL USE OF DREDGED MATERIAL PROJECT

## PLANNING PROCESS



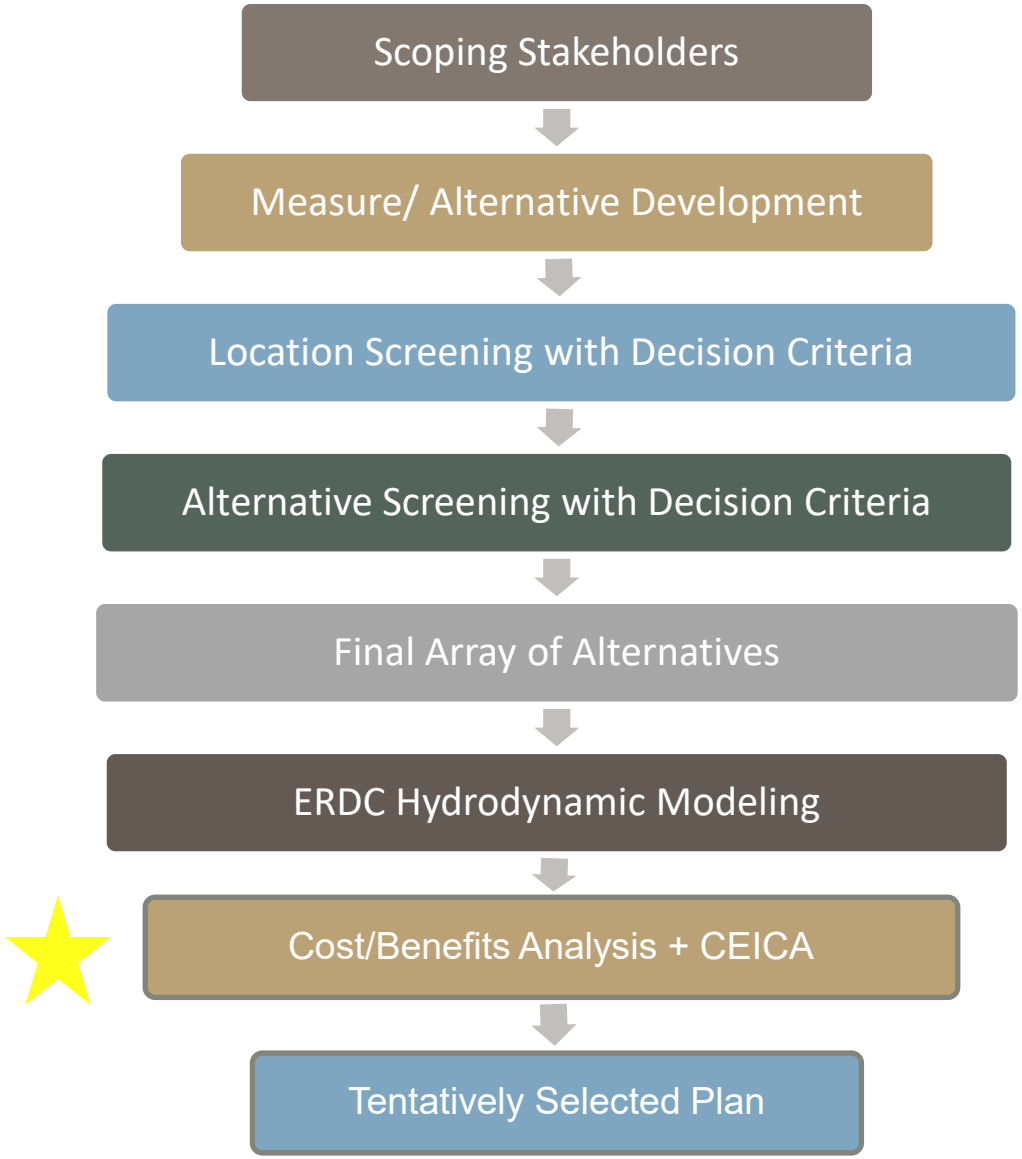

### THE FEASIBILITY STUDY PROCESS:

Key Decision & Product Milestones



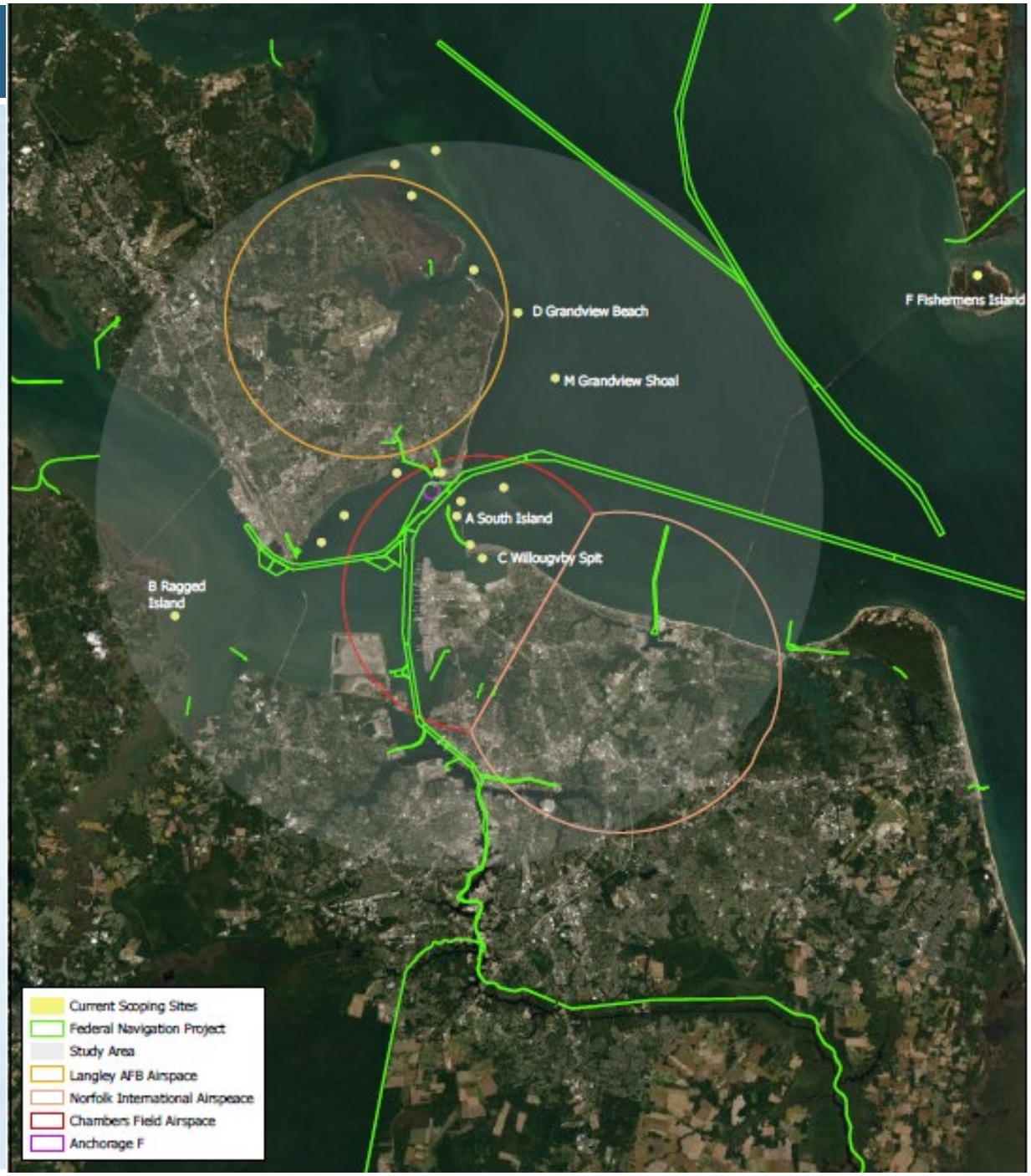

| PDT ACTION | DATE |
|---|---|
| Tentatively Selected Plan (TSP) | June 1, 2023 |
| Final NEPA document submittal | March 1, 2024 |
| Final Report Approval by NAD | May 10, 2024 |

# PLAN FORMULATION PATH FORWARD:



# Measures Considered

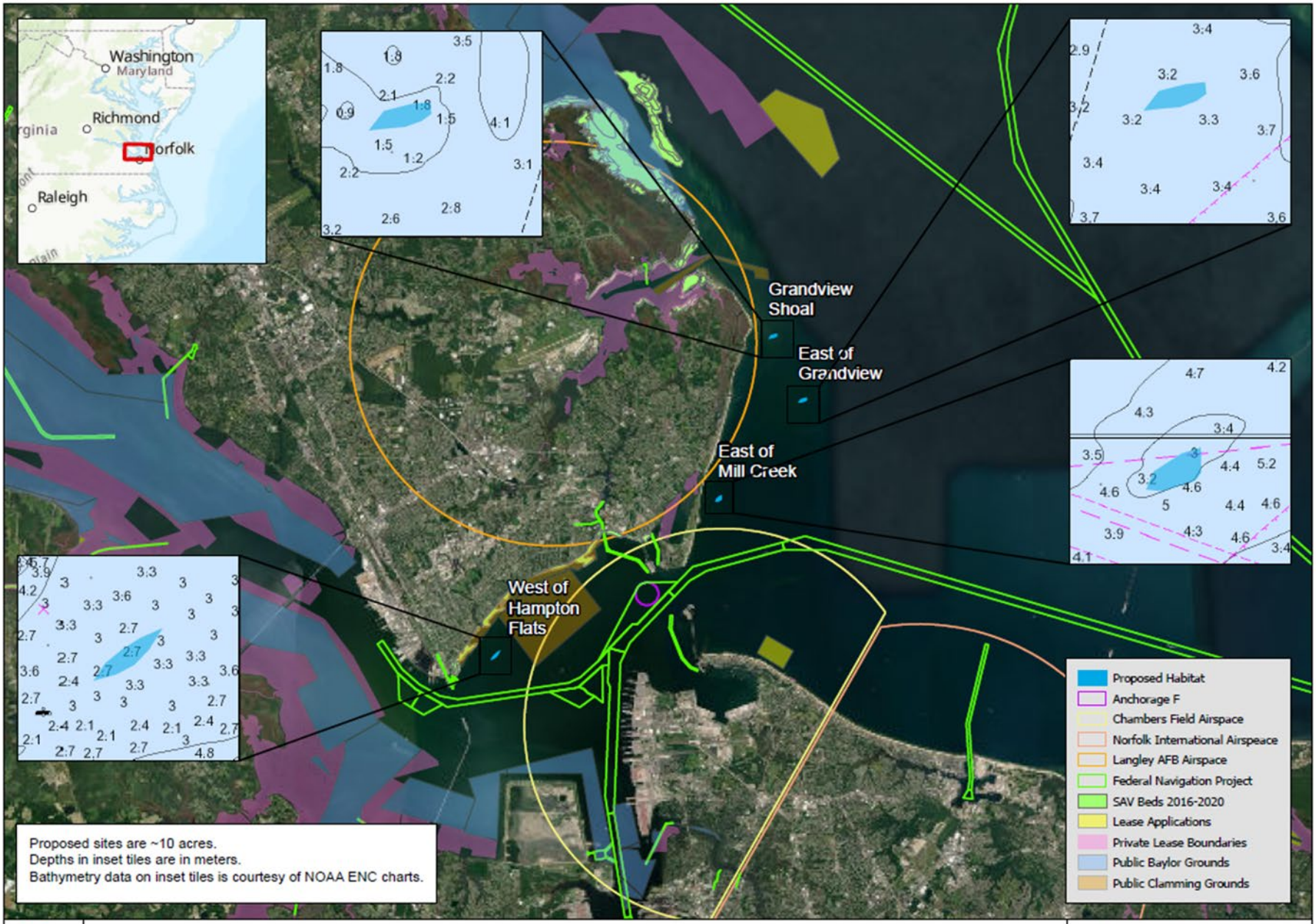
| | | |
|---|---|---|
| Thin layer spraying | Breakwaters | SAV plantings |
| Pumping from pipeline dredge | Full stabilization with armoring/revetment | Oyster Spat Application |
| Barge/Scow placement | Partial Stabilization with armoring/revetment | Oyster Shell Application |
| Mechanical grading of dredge material | Living Breakwaters | Reef structures |
| | Sidecasting | |


D Grandview Beach
M Grandview Shoal
F Fishermens Island
A South Island
C Willoughby Spit
B Ragged Island
Current Scoping Sites
Federal Navigation Project
Study Area
Langley AFB Airspace
Norfolk International Airspeace
Chambers Field Airspace
Anchorage F

**A total of 28 sites were evaluated for potential habitat areas using a "Two-Tier" Decision Criteria**

**Four locations were identified and four carried forward for further evaluation**

| | | | Tier 1 Decision Criteria | | Tier 2 Decision Criteria | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Location | Improves Safety of Aircraft Strike (Y/N) | Safe from Increased Predation of Colony (Y/N) | Envir/ Cult. Res. | Improve vehicle Strike | Within 21km | Navig. Conflicts | Pump Dist | User Conflicts | UXOs | Decision Score |
| | 1 | South Island | N | N | | | | | | | | |
| | 2 | Riprap Island | N | N | | | | | | | | |
| | 3 | Willoughby Spit | N | N | | | | | | | | |
| | 4 | Grandview Beach | N | N | | | | | | | | |
| | 5 | ChesBay Islands (Clump Island) | Y | N | | | | | | | | |
| | 6 | Fishermen's Island | Y | N | | | | | | | | |
| | 7 | Plum Tree Island | N | N | | | | | | | | |
| | 8 | Cow Island | N | N | | | | | | | | |
| | 9 | Whalebone Island | N | Y | | | | | | | | |
| | 10 | Drum Point | N | N | | | | | | | | |
| | 11 | Factory Point | N | N | | | | | | | | |
| | 12 | Plumtree Point | N | N | | | | | | | | |
| X | 13 | Grandview Shoal | Y | Y | .5 | 1 | 1 | 1 | 0 | 0 | 1 | 4.5 |
| X | 14 | East of Grandview | Y | Y | .5 | 1 | 1 | 1 | 0 | 0 | 1 | 4.5 |
| X | 15 | East of Mill Creek | Y | Y | .5 | 1 | 1 | 1 | .5 | 0 | 1 | 5.0 |
| | 16 | Fort Wool | N | N | | | | | | | | |
| | 17 | North of Plum Island | Y | N | | | | | | | | |
| | 18 | Ragged Island | Y | N | | | | | | | | |
| | 19 | Craney Island | N | N | | | | | | | | |
| X | 20 | Hampton Creek Shoal | Y | Y | .5 | 1 | 1 | 0 | 1 | 0 | 1 | 4.5 |
| ★ | 21 | West of Hampton Flats | Y | Y | .5 | 1 | 1 | 0 | .5 | 1 | 1 | 5.0 |
| X | 22 | East of Hampton Flats | Y | Y | .5 | 1 | 1 | 0 | 1 | 0 | 1 | 4.5 |




US Army Corps of Engineers Norfolk District

# Hampton Roads Beneficial Use of Dredged Material CAP 204

0 2 4 Miles

Map: HRBT_Island
Developed By: Kevin White
Date of Map: 12/21/2022

# FINAL ARRAY OF ALTERNATIVES

| Scenario | Description | Crest Elevation | Surface Area at Crest Elevation | AEP Used for Crest Elevation | Volumes Sand | Volumes of Stone | NNBFs |
|---|---|---|---|---|---|---|---|
| 1 | No Action | n/a | n/a | n/a | n/a | n/a | no |
| 2 | Fully Armored | +13ft NAVD88 | 10.2 acres | 100-yr | 308,000 | 350,500 | optimize |
| 3 | Fully Armored | +12ft NAVD88 | 8.2 acres | 50-yr | 234,000 | 284,500 | optimize |
| 4 | Partially Armored | +12ft NAVD88 | 8.2 acres | 50-yr | 421,000 | 197,800 | optimize |
| 5 | Unarmored | +13ft NAVD88 | 10.2 acres | 100-yr | 905,100 | n/a | no |
| 6 | Cutouts | +12ft NAVD88 | 10.2 acres | 50-yr | TBD | TBD | TBD |

These estimates were created to provide sustainability and resilience over the 50-year life of the project.

# ERDC: Engineer Research and Development Center

- ✓ This USACE Center of Expertise is modeling 5 habitat scenarios to determine hydrodynamic, geomorphology and sediment transport impacts.
- ✓ The results will support the selection of the Preferred Alternative.

## Study Objectives:

- To create a safe, permanent and suitable seabird habitat in Hampton Roads that is sustainable and resilient from 2025 to 2075 (i.e. the period of analysis).
- To provide ecological benefits to multiple species in Norfolk Harbor from 2025 to 2075.
- To beneficially use dredged material from federal navigation channels/projects in Hampton Roads for aquatic ecosystem restoration from 2025 to 2075.
- To improve safety in Hampton Roads by reducing potential bird strike with vehicles and aircraft from 2025 to 2075.

# NEXT STEPS:

Request Public Comment

- Draft Public Review of Feasibility document
  Aug 2023

Request Public .Participation

- Public Meeting
  Location:TBD
  Sept 2023