

Charleston District

FY24 AIWW Beneficial Use Sediment
Re-handling at Breach Inlet

Isle of Palms, SC
January 23th, 2024

B. Jacob Kyzar, PE
Project Manager

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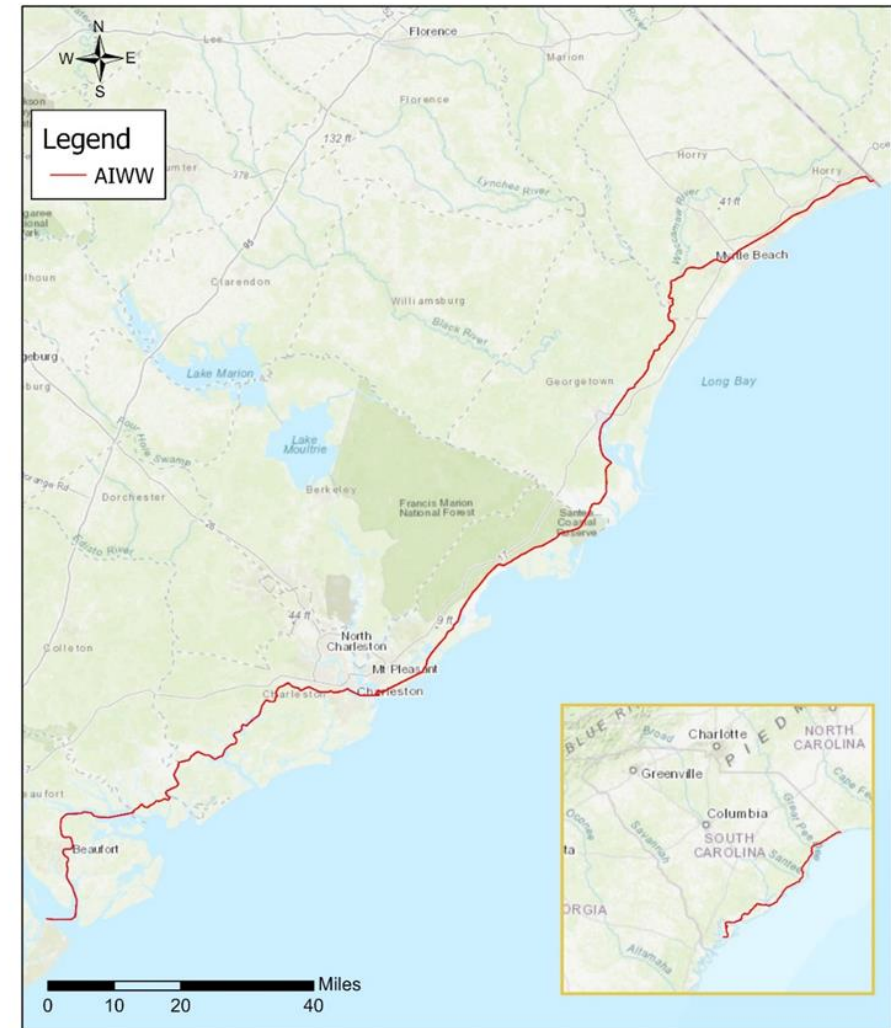


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PROJECT BACKGROUND

- The Atlantic Intercoastal Waterway (AIWW) is a Federal project, constructed and maintained by the U.S. Army Corps of Engineers (Authorized in 1937)
- ~235 miles total length in S.C. (212 is maintained by Charleston District)
- 12' Depth and 90' Wide along its length.
- Periodic maintenance dredging is conducted where shoals exists to maintain navigation at those dimensions (subject to appropriations)
- Breach Inlet Shoal (in AIWW not inlet) is regularly dredged.



Author: k2ap9my9	Map Date: 12/14/2020
Data Sources: USACE Service Layer Credits: World Topographic Map Sources: Esri, HERE, Garmin, Intermap, ioculture P Corp., GEBCO, USGS, FAO, NPS, NRCAN, Geobase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Swisstopo, (Switzerland), Swisstopo, (Switzerland), (China), (Hong Kong), (Taiwan), (Taiwan), (Taiwan), (Taiwan), (Taiwan), (Taiwan), (Taiwan), (Taiwan), (Taiwan), (Taiwan), and the OpenStreetMap contributors, and the GIS User Community	Scale: 1:1,053,139 Coordinate System: NAD 83 North Carolina State Plane NAD 83 FIPS 3147 Datum: North Carolina State Plane NAD 83 Units: Feet Authority: ESRI Source: ESRI

CESAC Atlantic Intracoastal Waterway

USACE Charleston District





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PROJECT BACKGROUND

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- Breach Inlet Shoal periodically dredged, with material traditionally placed in upland placement areas adjacent to AIWW.
- Sites are then dewatered. When full, dikes are raised using the dredged material to create capacity for future dredging needs.
- The Federal standard for dredging has been to dispose of dredged material at lowest acceptable cost.
- We are now allowed to consider life cycle costs and environmental benefits in the calculation.
- This expands opportunities for beneficial use of dredged material (in this case SAND!)





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PROPOSED BENEFICIAL USE PROJECT

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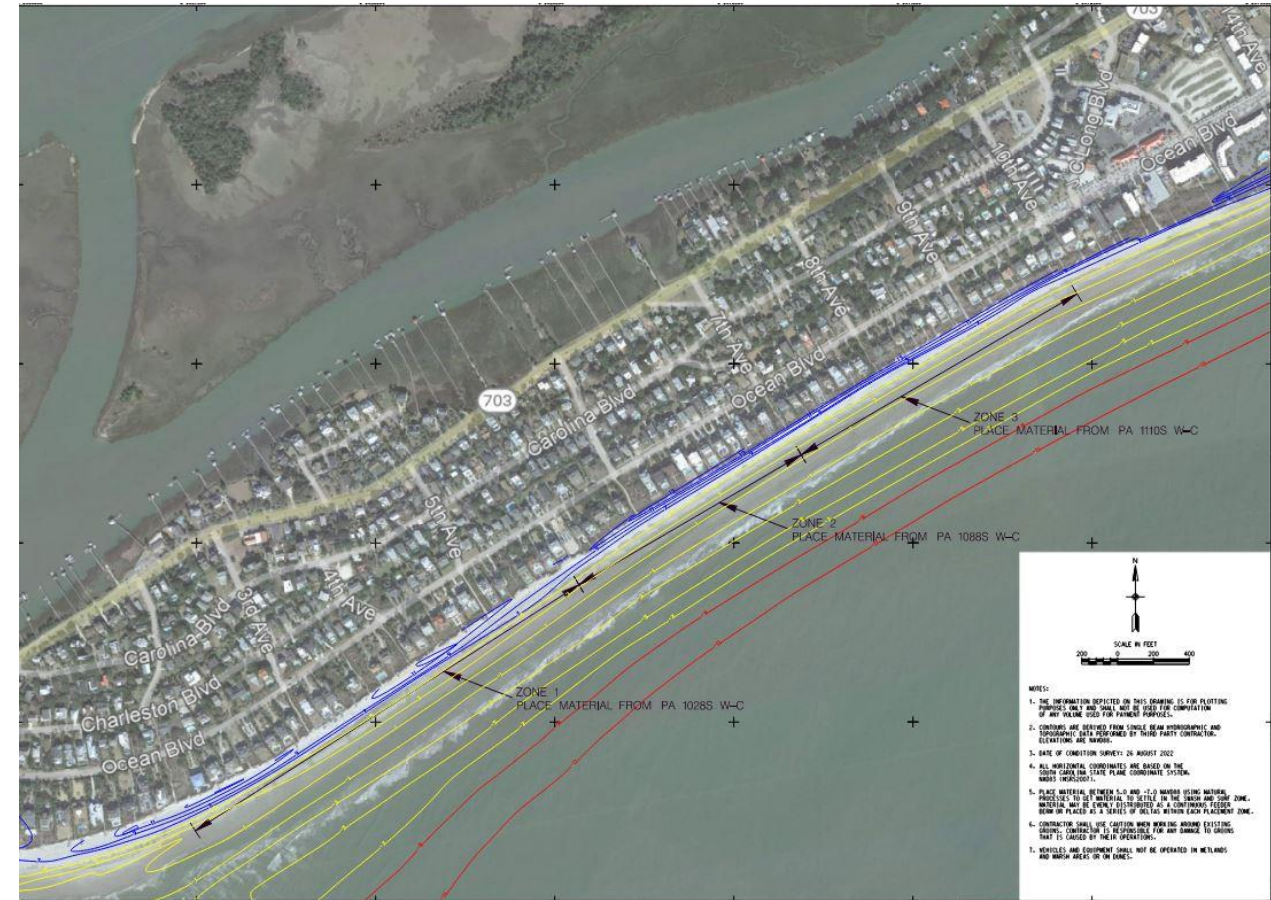
OVERVIEW

- Primary purpose of the project is to regain capacity in several upland dredge placement areas along the AIWW by removing in-situ sand.
- Material will be beneficially used by placing the sand on nearby beaches at Sullivan's Island and IOP.
- Estimated 500,000+ CY of sand placed on IOP. (Below High Tide)



WHAT TO EXPECT DURING CONSTRUCTION

- Three placement zones, 2nd to 10th Ave.
- All sand placement will be below high tide in the Surf/Swash Zone.
- Limited heavy equipment and lighting on the beach, managing pipeline, limited grading, etc.
- 24/7 Operations
- ~ 4-month operation at IOP
- Construction period between ~ MAR 2024 – AUG 2024





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- NOTES:
1. THE INFORMATION DEPICTED ON THIS DRAWING IS FOR PLOTTING PURPOSES ONLY AND SHALL NOT BE USED FOR COMPUTATION OF ANY VOLUME USED FOR PAYMENT PURPOSES.
 2. CONTOURS ARE DERIVED FROM SINGLE BEAM HYDROGRAPHIC AND TOPOGRAPHIC DATA PERFORMED BY THIRD PARTY CONTRACTOR. ELEVATIONS ARE NAVD83.
 3. DATE OF CONDITION SURVEY: 26 AUGUST 2022
 4. ALL HORIZONTAL COORDINATES ARE BASED ON THE SOUTH CAROLINA STATE PLANE COORDINATE SYSTEM (NAD83 11042000).
 5. PLACE MATERIAL BETWEEN 5.0 AND -7.0 MANDOR USING NATURAL PROCESSES TO LET MATERIAL SETTLE IN THE SAND AND SILT ZONE. MATERIAL MAY BE EVENLY DISTRIBUTED AS A CONTINUOUS FEEDER BERM OR PLACED AS A SERIES OF DELTAS WITHIN EACH PLACEMENT ZONE.
 6. CONTRACTOR SHALL USE CAUTION WHEN WORKING AROUND EXISTING CANNALS. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO GRASSES THAT IS CAUSED BY THEIR OPERATIONS.
 7. VEHICLES AND EQUIPMENT SHALL NOT BE OPERATED IN WETLANDS AND MARSH AREAS OR ON DUNES.



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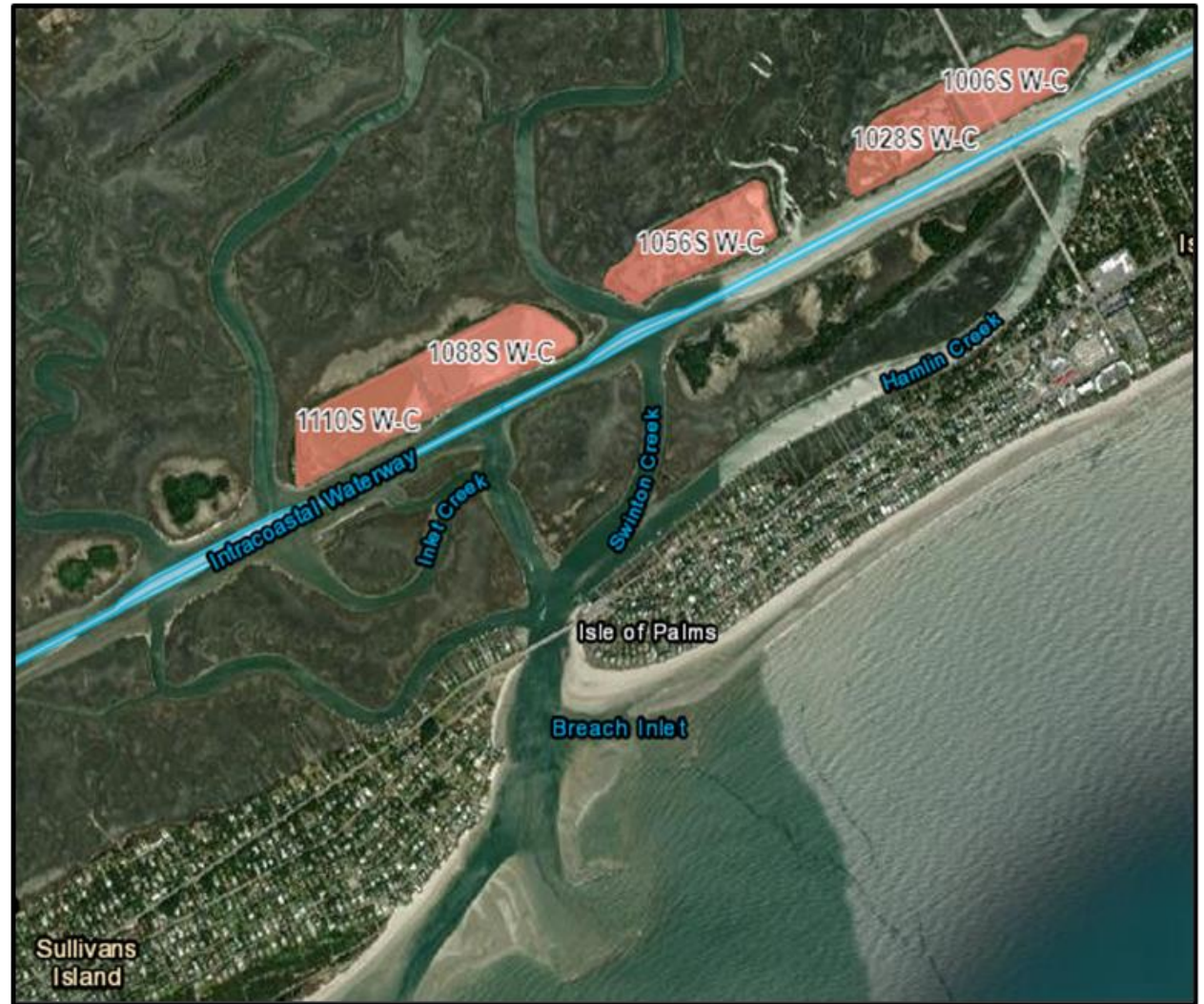


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SCHEDULE

- Award Contract: FEB 23*
- Construction ~ MAR 24 – AUG 24*
- Construction period include 1-2 months at Sullivans Island

*dependent receiving awardable bid





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DISCUSSION

- USACE Future Beneficial Use Opportunities
- Project is not a full-scale beach re-nourishment.
- Surf Zone Placement
- Separate & Distinct project.