Charleston Harbor Deepening Feasibility Study (Post 45 Study)

Public Meeting

LTC Edward P. Chamberlayne, P.E.
District Commander
Charleston District
U.S. Army Corps of Engineers

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Purpose:

To inform public of progress on the Post 45 feasibility study.

Format:

Voluntary, informal workshop designed to allow attendees to circulate among and ask questions of the study team.

Why Does the Corps Have to Prepare a Study?

To Ensure Wise and Efficient Use of Taxpayer Funds!

Post 45 Feasibility Study

Problems

- Increased operation costs due to light loading and tidal delays
- Growth trends in container traffic necessitates navigational improvements

Opportunities

- Reduce transportation cost of trade
- Reduce operations and maintenance costs for federal channel
- Reduce navigation constraints facing harbor pilots
- Beneficial use of dredged material
- Enhance natural resources in the project area
- Preserve cultural/historical resources

Preliminary Alternatives

- Deepening channel(s) to a variety of depths, including 50+ feet MLLW,
- Widening channel(s),
- Adjusting existing channel alignments/bend easing, and
- Widening and/or lengthening turning basins.

When will the Corps complete the Study?

By September 2015

Post 45 Overview

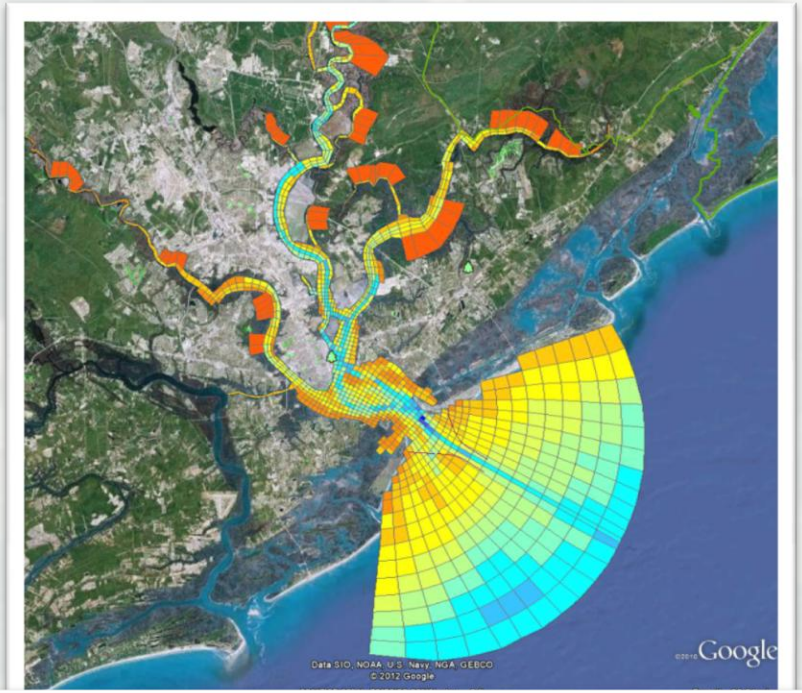
- Civil Works Study – Feasibility Phase
- Feasibility Study Cost <$13M
  - Reduction from original $18-$20M estimate
- Preliminary Construction Cost Estimate – $300-$350M
- Cost Share Sponsor – South Carolina State Ports Authority
- Target for Chief's Report Completion – Sept 2015
  - Reduction from original estimate of 5 – 8 years
- Selected for the President's ***We Can't Wait*** Initiative

Post 45 Overview

- Last Public Workshop held in December 2011
- NEPA scoping period ended February 2012
- Taking into account feedback received during scoping and current USACE Civil Works Transformation initiatives, the study team:
  - ➢ refined the study scope
  - ➢ developed detailed plans for assessments to address concerns
  - ➢ refined the study schedule and cost

Post 45 Overview

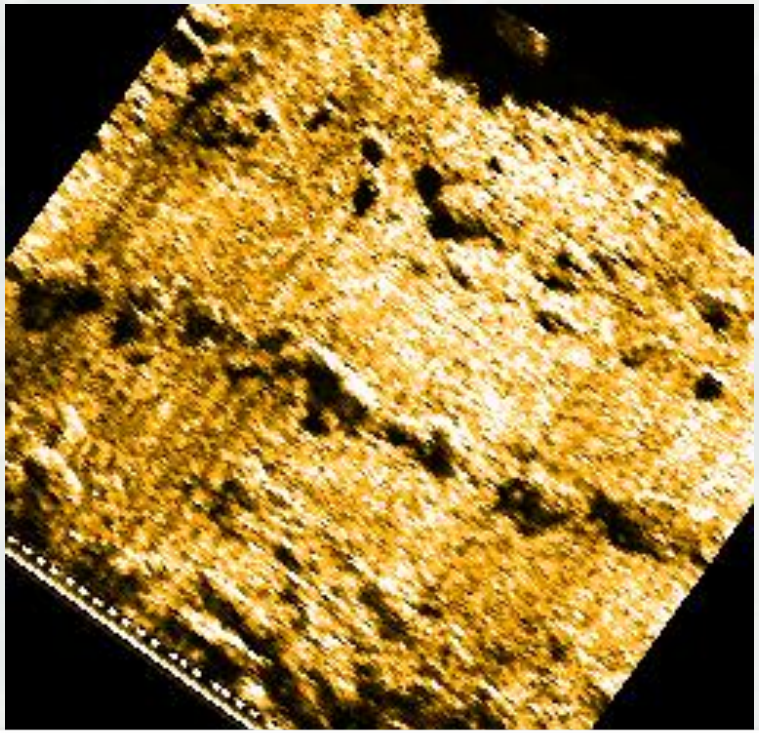
- Since Aug 2012, the following efforts have been completed or are substantially complete:
  - Water Quality and Velocity Data Collection (USGS)
  - Cultural and Hard Bottom Resources Survey (CCU)
  - Sub-bottom Profiling (CCU)
  - Environmental Sediment Sampling (ANAMAR)
  - Benthic Sampling (SCDNR)
  - Wetland Mapping (USACE)
  - Refining Environmental Model (TETRA TECH)
  - Subsurface Wash Probes (ATHENA)



Water currents and water quality information, collected by the **US Geological Survey** (USGS), are being used by **Tetra Tech, Inc.** to validate the **Environmental Fluid Dynamics Code** (EFDC) modeling of existing harbor conditions.

Effectively representing key parameters within the harbor is crucial because projections of the future without-project and future with-project condition (alternative analysis) will be built upon this foundation.

Joint Airborne Lidar Bathymetry Technical Center of Expertise (JALBTCX) has conducted an aerial imagery assessment to identify dominant **wetland plant communities** along the upper Cooper River where existing data is limited.



In the fall of 2012, our partners at **Coastal Carolina University** performed vessel based surveys necessary to assess the presence and/or absence of both **cultural and hardbottom resources** in areas of the harbor with limited or no data.

By locating these resources, we will be able to formulate plans to avoid, minimize, or mitigate potential impacts.

Our partners at the **SCDNR Marine Resources Research Institute** have completed 3 of the 4 scheduled field studies that collect and analyze data necessary to evaluate the **macrobenthic** communities, **sediment composition**, and bottom **water quality** characteristics in areas of the harbor with limited or no data.

ANAMAR Environmental Consulting, Inc. is substantially complete with a contract to collect and conduct physical/chemical, toxicological, and bioaccumulation evaluations on **sediment samples** for the purpose of determining where and how sediment dredged during potential deepening can be disposed.

Athena Technologies, Inc. recently completed collection and analysis of 194 **wash probes** within the entrance channel. A wash probe consists of an open-ended drill rod through which water is jetted to advance the pipe through unconsolidated sediments to refusal. This effort will help engineers quantify the amount of consolidated material that may be removed during deepening.

What's Next?

- Continue to Develop Alternatives and Analyze the Costs and Benefits
- DEIS & Draft Report for Public Review – Summer 2014
- FEIS & Final Report Complete – Spring 2015
- Final Chief's Report – September 2015
- Preconstruction Engineering and Design (PED) Phase
- Authorization and Appropriation for Construction
- Construction

Charleston District

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