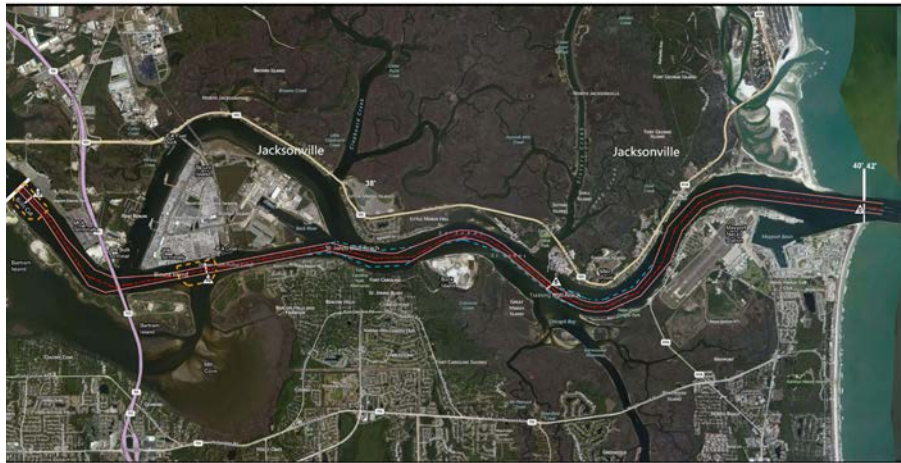


JACKSONVILLE HARBOR NAVIGATION IMPROVEMENT PROJECT DUVAL COUNTY, FLORIDA

25 February 2014



ABSTRACT: The deep draft Jacksonville Harbor Federal navigation project is located along 27 miles of the St. Johns River and provides access to ocean-going vessels using terminal facilities located in the City of Jacksonville, Florida. The primary concentration of port facilities along Jacksonville Harbor is between miles 8 and 20, and includes container and bulk

shipping facilities, oil terminals and naval facilities. There is an opportunity to improve navigation at Jacksonville Harbor by reducing transportation costs for larger ships forecast to call at Jacksonville Harbor. The non-Federal sponsor is the Jacksonville Port Authority. This project is included in President Barack Obama's "We Can't Wait" March 2012 Executive Order expediting infrastructure projects.

The current authorized channel depth is 40 feet for the main channel and 38 feet for the West Blount Island Channel. For planning purposes, the project was evaluated in segments (reaches). Evaluation segment 1 was originally from the entrance channel to approximately River Mile 14 (Dames Point), but was later reduced to approximately River Mile 13. Segments 2 and 3 include additional reaches between Dames Point and Talleyrand and the West Blount Island Channel (Cuts F and G). Ship simulation modeling was conducted to determine changes in the project footprint required for the larger vessels to maneuver in the channel. The modeling was also used to identify navigation problems and measures required to improve navigation in the harbor. After initial evaluation and with concurrence of the non-federal sponsor, Segments 2 and 3 were eliminated because it was determined that the majority of benefiting vessels primarily transit Segment 1. Multiple channel deepening and widening measures and turning basins were combined into alternative plans.

Based on an evaluation of alternative plan economic costs and benefits, the National Economic Development (NED) plan includes a 45-foot deep channel with associated widening and turning basins. This is the depth at which net benefits (benefits minus costs) are greatest. The benefit-to-cost ratio (BCR) for the NED plan is 3.2. The Jacksonville Port Authority subsequently requested a locally preferred plan (LPP) including a 47-foot depth with associated widening and turning basins. The LPP has positive net benefits and is economically justified (BCR is 2.6). The recommendations for the widening areas and the turning basins are the same for both the NED and the LPP. In accordance with USACE policy, the LPP was submitted for consideration to the Assistant Secretary of the Army for Civil Works (ASA-CW) and approved for consideration as the recommended plan on May 17, 2013.

The recommended plan is the locally preferred plan (LPP). The recommended plan includes deepening the Federal channel to 47 feet from the entrance channel to approximately River Mile 13, two areas of widening at the Training Wall Reach and St. Johns Bluff Reach, and two new Turning Basins at Blount Island and Brills Cut. Based on October 2013 price levels, the estimated total project costs of the plan are \$694,800,000 with \$338,300,000 Federal share and \$356,500,000 non-Federal share. Based on a 3.50-percent discount rate for FY14 and a 50-year period of analysis, the total equivalent average annual costs of the project are estimated to be \$34,300,000. The average annual equivalent benefits are estimated to be \$89,700,000. The average annual net benefits are \$55,400,000. All dredging material will go to the ODMS located approximately 8 to 10 miles offshore from the mouth of the St. Johns River. It is estimated that this project will increase the annual O&M requirements by ~137,000 cubic yards and the O&M cost will increase by ~\$1.1 million. The additional O&M cost is due to increases of the project footprint (i.e. areas of widening) required for the recommended plan.

Mitigation is required for wetlands and submerged aquatic vegetation affected by the deepening. A base mitigation plan, consisting of conservation land purchase of 638 acres of freshwater wetlands, uplands, river shoreline, and salt marsh wetlands has been proposed. A model verification process is included within the mitigation plan, and would be implemented for a minimum of 5 years post-construction. This will ensure that the proposed deepening effort will not negatively affect the ecological resources of the Lower St. Johns River above and beyond that which was predicted and mitigated for in the deepening study. The specific objective of the plan is to measure actual salinity effects of the project deepening. Salinity levels within the St. Johns River can also be affected by dry and wet years, sea level rise, water withdrawal, and other factors. The system is already showing signs of salinity effects, i.e. conversion of tidal swamp to tidal marsh. Measuring salinity effects potentially caused by the deepening would reduce uncertainty of predicted salinity impacts and most importantly the causes of impacts. If we do not measure salinity after deepening and changes to the resources continue there will be no way to discern what caused the changes. Collectively, the mitigation measures and the project corrective action plan will help ensure that adverse effects resulting from project implementation will be offset in the St. Johns River watershed.

REPORT DOCUMENTATION: Pertinent documentation on the project, the results of the CWRB, and subsequent Washington-Level Review Actions, are linked below:

- CWRB Agenda
- [Project Summary](#)
- [CWRB Briefing Slides](#)
- [CWRB Lessons Learned](#)
- CWRB Meeting Record
- State & Agency Review Comment Letters
- Documentation of Review Findings
- [Signed Chief of Engineers Report](#)
- [Advance Copy to Congressional Committees](#)
- ASA(CW) Memo to OMB
- OMB Response
- ASA(CW) Transmittal to Congress
- Signed Record of Decision
- Authorization

ADDITIONAL INFORMATION: [South Atlantic Division](#)

[Jacksonville District – Planning Div. – Project Documents](#)
(At right, click on Jacksonville Harbor Deepening project)