



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SOUTH ATLANTIC DIVISION
60 FORSYTH STREET SW, ROOM 10M15
ATLANTA, GA 30303-8801

CESAD-RBT

19 June 2019

MEMORANDUM FOR Commander, Jacksonville District, 701 San Marco Boulevard,
Jacksonville, Florida 32207

SUBJECT: Approval of the Review Plan for the Jacksonville Harbor Deepening Project, Outer
Channel Extension, Duval County, Florida

1. References:

a. Memorandum, CESAJ-EN-Q, 10 June 2020, subject as above.

b. Engineering Circular (EC) 1165-2-217, Water Resources Policies and Authorities
Review Policy for Civil Works, 20 February 2018.

2. The Review Plan (RP) for the Jacksonville Harbor Deepening Project, Outer Channel
Extension, submitted by the Jacksonville District via reference 1.a. noted above has been
reviewed by South Atlantic Division (SAD). The enclosed RP is hereby approved in accordance
with reference 1.b.

3. The South Atlantic Division Office shall be the Review Management Organization (RMO) for
this project.

4. SAD concurs with the District's RP recommendation that outlines the requirements for
District Quality Control (DQC) and Biddability, Constructability, Operability, Environmental and
Sustainability (BCOES) Review and the conclusion that an Agency Technical Review is not
warranted, and a Safety Assurance Review/Type II Independent External Peer Review is not
required.

5. The District should take steps to post the approved RP to its website and provide a link to
CESAD-RBT. Before posting to the website, the names of Corps/Army employees should be
removed. Subsequent significant changes to this RP, such as scope or level of review changes,
should they become necessary, will require new written approval from this office.

6. The SAD point of contact is [REDACTED], CESAD-RBT, [REDACTED].

Encl

[REDACTED]
Major General, USA
Commanding



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207-8175

CESAJ-EN-Q

MEMORANDUM FOR Commander, South Atlantic Division (CESAD-RBT), 60 Forsyth Street SW, Room 10M15, Atlanta, GA 30303

SUBJECT: Approval of Review Plan for the Jacksonville Harbor Deepening Project Outer Channel Extension, Duval County, Florida

1. References:

- a. Engineering Circular (EC) 1165-2-217, Review Policy for Civil Works, 20 Feb 18.
- b. Flood Control Act of 1946, Public Law 79-526, 24 Jul 46.

2. I hereby request approval of the enclosed Review Plan for the Jacksonville Harbor Deepening Project Outer Channel Extension, Duval County, Florida and concurrence with the conclusion that a Type II Independent External Peer Review (IEPR) of the subject project is not required. The recommendation not to perform a Type II IEPR is based on the EC 1165-2-217 Risk Informed Decision Process as presented in the Review Plan. The Review Plan complies with applicable policy, provides for Agency Technical Review, and has been coordinated with the SAD. It is my understanding that non-substantive changes to this Review Plan, should they become necessary, are authorized by SAD.

3. The district will post the approved Review Plan to its website and provide a link to the SAD for its use. Names of Corps/Army employees will be withheld from the posted version, in accordance with guidance.

4. Point of contact is [REDACTED], Engineering Review Manager, [REDACTED] of [REDACTED].

[REDACTED]
COL, EN
Commanding

PROJECT REVIEW PLAN

For

Preconstruction, Engineering and Design Phase Implementation Documents

For

Jacksonville Harbor Channel Deepening (47') Outer Channel Extension Cut-1, Cut-2, and Bar Cut-3 Duval County, Florida

Project P2 number: 443862

Jacksonville District

April 2020



**US Army Corps
of Engineers**®

THE INFORMATION CONTAINED IN THIS REVIEW PLAN IS DISTRIBUTED SOLELY FOR THE PURPOSE OF PREDISSEMINATION PEER REVIEW UNDER APPLICABLE INFORMATION QUALITY GUIDELINES. IT HAS NOT BEEN FORMALLY DISSEMINATED BY THE U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT. IT DOES NOT REPRESENT AND SHOULD NOT BE CONSTRUED TO REPRESENT ANY AGENCY DETERMINATION OR POLICY.

TABLE OF CONTENTS

1. PURPOSE AND REQUIREMENTS	1
a. Purpose	1
b. References	1
c. Requirements	1
d. Review Plan Approval and Updates	2
e. Review Management Organization.....	2
2. PROJECT INFORMATION	3
a. Project Overview.....	3
b. Project Authorization.....	3
c. Current Project Description.....	4
d. Public Participation	7
e. In-Kind-Contributions by Project Sponsor.....	7
3. DISTRICT QUALITY CONTROL	8
4. AGENCY TECHNICAL REVIEW	9
a. Risk Informed Decision on Appropriate Level of Review	9
b. Agency Technical Review Scope.	9
5. BIDDABILITY, CONSTRUCTABILITY, OPERABILITY, ENVIRONMENTAL, AND SUSTAINABILITY (BCOES) REVIEW	10
6. INDEPENDENT EXTERNAL PEER REVIEW	11
a. General.....	11
b. Type I Independent External Peer Review (IEPR) Determination.	11
c. Type II Independent External Peer Review (IEPR) Determination (Section 2035)...	11
7. POLICY AND LEGAL COMPLIANCE	12
8. MODEL CERTIFICATION AND APPROVAL	13
9. PROJECT DELIVERY TEAM DISCIPLINES	14
10. BUDGET AND SCHEDULE	14
a. Schedule.....	15

ATTACHMENT A - Approved Review Plan Revisions

ATTACHMENT B - Partial List of Acronyms and Abbreviations

1. PURPOSE AND REQUIREMENTS

a. Purpose

This Review Plan (RP) for the Jacksonville Harbor Deepening Project (Outer Channel Extension), Duval County, Florida, will help ensure a quality-engineering project is developed by the U.S. Army Corps of Engineers (USACE) in accordance with EC 1165-2-217, "Review Policy for Civil Works." As part of the Project Management Plan (PMP), this RP establishes an accountable, comprehensive, life-cycle review strategy for Civil Works products and lays out a value added process and describes the scope of review for the current phase of work. The EC outlines five general levels of review: District Quality Control/Quality Assurance (DQC), Agency Technical Review (ATR), Biddability, Constructability, Operability, Environmental, and Sustainability (BCOES) Review, Independent External Peer Review (IEPR), and Policy and Legal Compliance Review. This RP will be provided to the Project Delivery Team (PDT) and the DQC and BCOES Teams. The technical review efforts addressed in this RP, DQC and BCOES, are to augment and complement the policy review processes. The District Chief of Engineering has assessed that the life safety risk of this project is not significant; therefore, a Type II IEPR/Safety Assurance Review (SAR) will not be required, see Paragraph 6. Any levels of review not performed in accordance with EC 1165-2-217 will require documentation in the RP of the risk-informed decision not to undertake that level of review.

b. References

- (1). ER 1110-2-1150, "Engineering and Design for Civil Works Projects," 31 August 1999
- (2). ER 1110-1-12, "Engineering and Design Quality Management," 31 March 2011
- (3). EC 1165-2-217, "Review Policy for Civil Works," 20 February 2018
- (4). ER 415-1-11, "Biddability, Constructability, Operability, Environmental, and Sustainability (BCOES) Review," 1 January 2013
- (5). Final General Reevaluation Report II and Supplemental Environmental Impact Statement, Jacksonville Harbor Deepening Study, Duval County, Florida, 18 April 2014
- (6). Chief of Engineers Report, Jacksonville Harbor Deepening Study, Duval County, Florida, 30 April 2014
- (7). Project Management Plan dated November 2013, Jacksonville Harbor, General Reevaluation Report for Proposed 50-foot Project Depth, P2 # 113131
- (8). 02611-SAJ, Quality Control of In-House Products: Civil Works PED, 21 November 2011
- (9). 08550-SAJ, BCOES Reviews, 21 September 2011

c. Requirements

This RP was developed in accordance with EC 1165-2-217, which establishes an accountable, comprehensive, life-cycle review strategy for Civil Works products by providing a seamless process for review of all Civil Works projects from initial planning through design, construction, and Operation, Maintenance, Repair, Replacement and Rehabilitation (OMRR&R). The EC provides the procedures for ensuring the quality and credibility of USACE decision, implementation, and operations and maintenance documents and other work products.

d. Review Plan Approval and Updates

The South Atlantic Division (SAD) Commander is responsible for approving this RP. The Commander's approval reflects vertical team input as to the appropriate scope and level of review. Like the PMP, the RP is a living document and may change as the project progresses. The Jacksonville District (SAJ) is responsible for keeping the RP up to date. Minor changes to the RP since the last SAD Commander approval will be documented in Attachment A. Significant changes to the RP (such as changes to the scope and/or level of review) should be re-approved by the SAD Commander following the process used for initially approving the plan. The latest version of the RP, along with the Commander's approval memorandum, will be posted on the SAJ's webpage. The latest RP will be provided to SAD.

e. Review Management Organization

SAD is designated as the Review Management Organization (RMO). The RMO, in cooperation with the vertical team, will approve the ATR team members. SAJ will assist SAD with management of the ATR and development of the charge to reviewers.

2. PROJECT INFORMATION

a. Project Overview

The Jacksonville Harbor Federal navigation project encompasses approximately 20 river miles from the mouth of the St. Johns River at Mayport to the Talleyrand terminal near downtown Jacksonville. The current authorized channel depth is 40 feet for the main channel and 38 feet for the West Blount Island Channel. Channel improvements will allow existing fleet and new deeper draft vessels to utilize the channel more efficiently and safely, thereby reducing transportation cost.

The Recommended Plan (preferred alternative) is the locally preferred plan (LPP) of 47-foot MLLW as identified in the 16 April 2014 Chief's Report. This plan includes deepening from the existing 40-foot channel to 47 feet from the entrance channel to approximately River Mile 13. The following areas of widening are included as part of the new channel footprint for the LPP:

- Mile Point: Widen to the north by 200 feet from Cuts 8 to 13 (~River Miles 3 to 5)
- Training Wall Reach: Widen to the south 100 feet from Cuts 14 to 16 (~River Miles 5 to 6) transitioning to 250 feet for Cut 17 (~River Mile 6) and back to 100 feet from Cuts 18 to 19 (~River Mile 6)
- St. Johns Bluff Reach: Widen both sides of the channel varying amounts up to 300 feet from Cuts 40 to 41 (~River Miles 7 to 8)

The following turning basin areas are included in the Recommended Plan:

- Blount Island: ~2,700 feet long by 1,500 feet wide located in Cut 42 (~River Mile 10)
- Brills Cut: ~2,500 feet long by 1,500 feet wide located in Cut 45 (~River Mile 13)

Construction of the recommended plan involves dredging of approximately 18 million cubic yards of material. All material dredged for construction is expected to go to the Ocean Dredged Material Disposal Site (ODMDS).

The mitigation plan consists of conservation land purchase of approximately 638 acres of freshwater wetlands, uplands, river shoreline, and salt marsh wetlands. It has been determined by USACE that this plan would be sufficient to offset any minor effects that may occur as a result of the proposed project. A long-term Corrective Action Plan, which includes field data collection, has been prepared by USACE to provide assurances that actual effects will be assessed and corrective actions coordinated.

b. Project Authorization

The original deepening study was authorized through a resolution from the Committee on Public Works and Transportation, U.S. House of Representatives, dated February 5, 1992, resulting in a feasibility study that recommended modifications from the entrance channel to River Mile 14.7, including deepening 38 feet to 40 feet. Deepening of that segment was authorized in the 1999 Water Resources Development Act, and construction was completed in 2003. A General Reevaluation Report (GRR) recommended deepening the harbor from River Mile 14.7 to River Mile 20 from 38 feet to 40 feet; deepening of that segment was authorized in the FY2006 Appropriations Act and construction was completed in 2010. To follow through with the intent of the original 1992 study authorization, it was determined by the U.S. Army Corps of Engineers (USACE) that further study was needed. The Feasibility and Cost Sharing Agreement (FCSA) for this study was signed July 1, 2005, and amended June 15, 2006. President Barack Obama issued an Executive Order ("We Can't Wait") expediting completion of the Jacksonville Harbor deepening study and reducing the study schedule by 14 months.

c. Current Project Description

The Jacksonville Harbor Deepening Project is currently scheduled to be awarded in four separate construction contracts as shown in Figure 1 below. Contract A, Contract B, and Contract C are currently under construction and scheduled to be completed in June 2020, December 2020, and December 2022, respectively. Review plans for Contract A, Contract B, and Contract C were approved and their respective ATRs have been performed. This review plan only covers the work for the Outer Channel Extension (Figure 2), which was added to the project at the request of NOAA and the St. Johns Bar Pilot Association and includes dredging areas above 51' MLLW in the newly established Cut-1, Cut-2, and Bar Cut-3 extension (Figure 3). Due to the inability of NOAA to designate suitable approach lanes for the new project under existing conditions, especially with a direct easterly channel extension, a meeting was held on 17 April 2019 with USACE, St. Johns Bar Pilots, NOAA, USCG, US Navy, and JaxPort. Subsequent to that meeting, a letter was provided by the St. Johns Bar Pilots to the Corps requesting that a Channel Extension be established in order to fully utilize the 47' Project.

Figure 1 depicts the existing project which starts with Bar Cut-3 at the eastern end, Figure 2 depicts where the extension ties into the existing Bar Cut-3, and Figure 3 depicts the locations of the shoals. Figures 2 and 3 depict the newly created Cut-1, Cut-2, and Bar Cut-3 extension (consisting of Bar Cut-3A and Bar Cut-3B.)

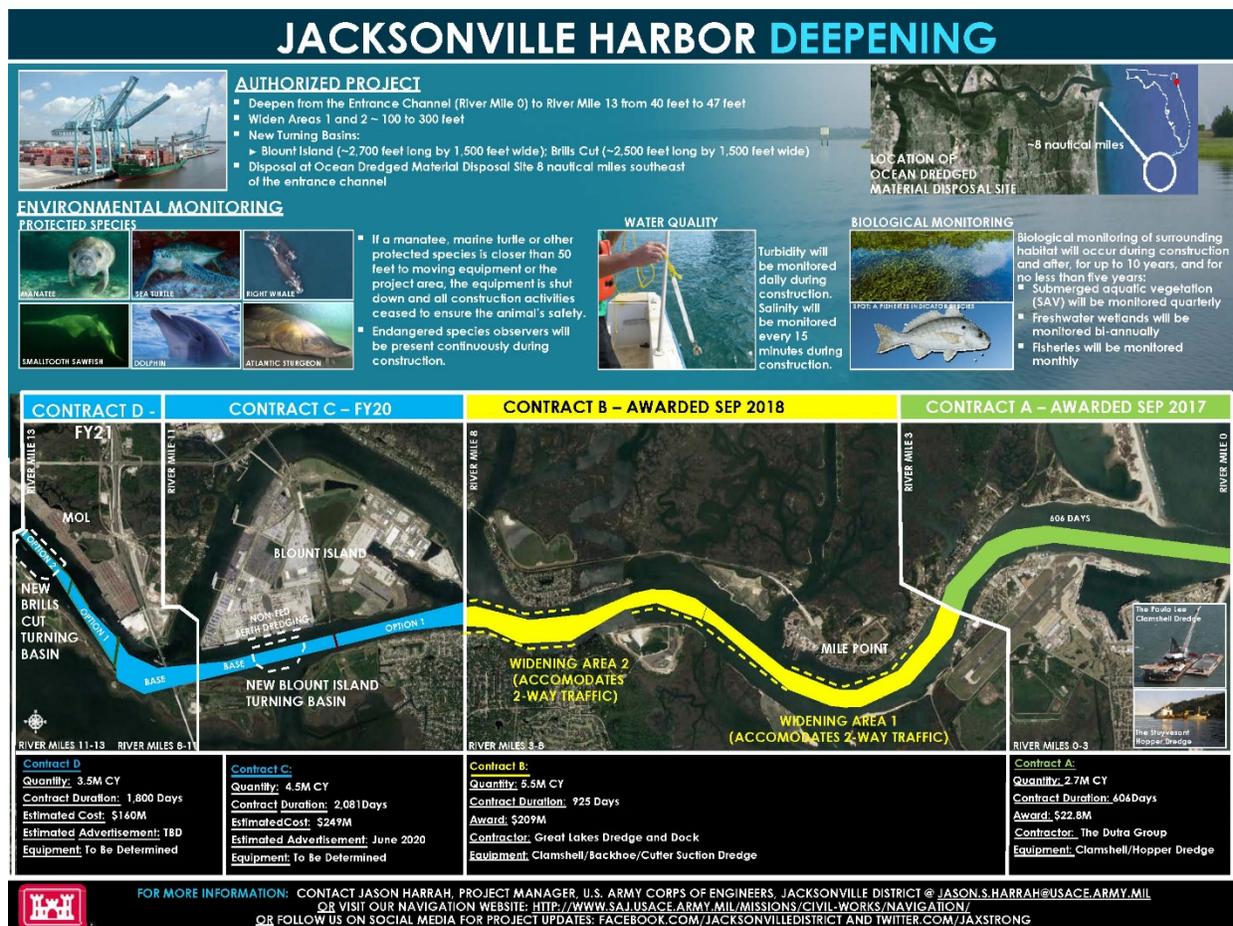


Figure 1: Jacksonville Harbor Deepening Project Construction Contracts

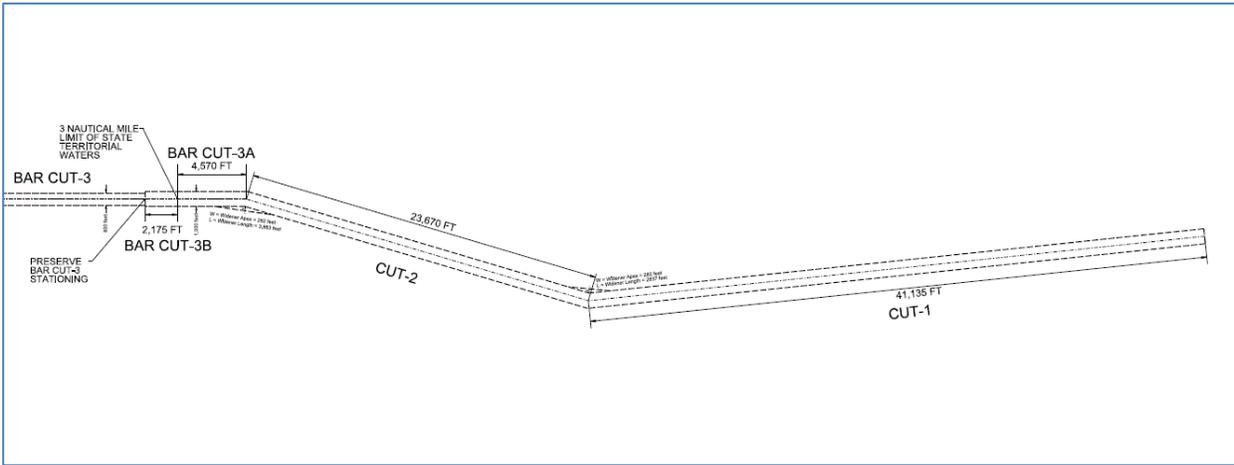


Figure 2: Jacksonville Harbor Outer Channel Extension Dimensions

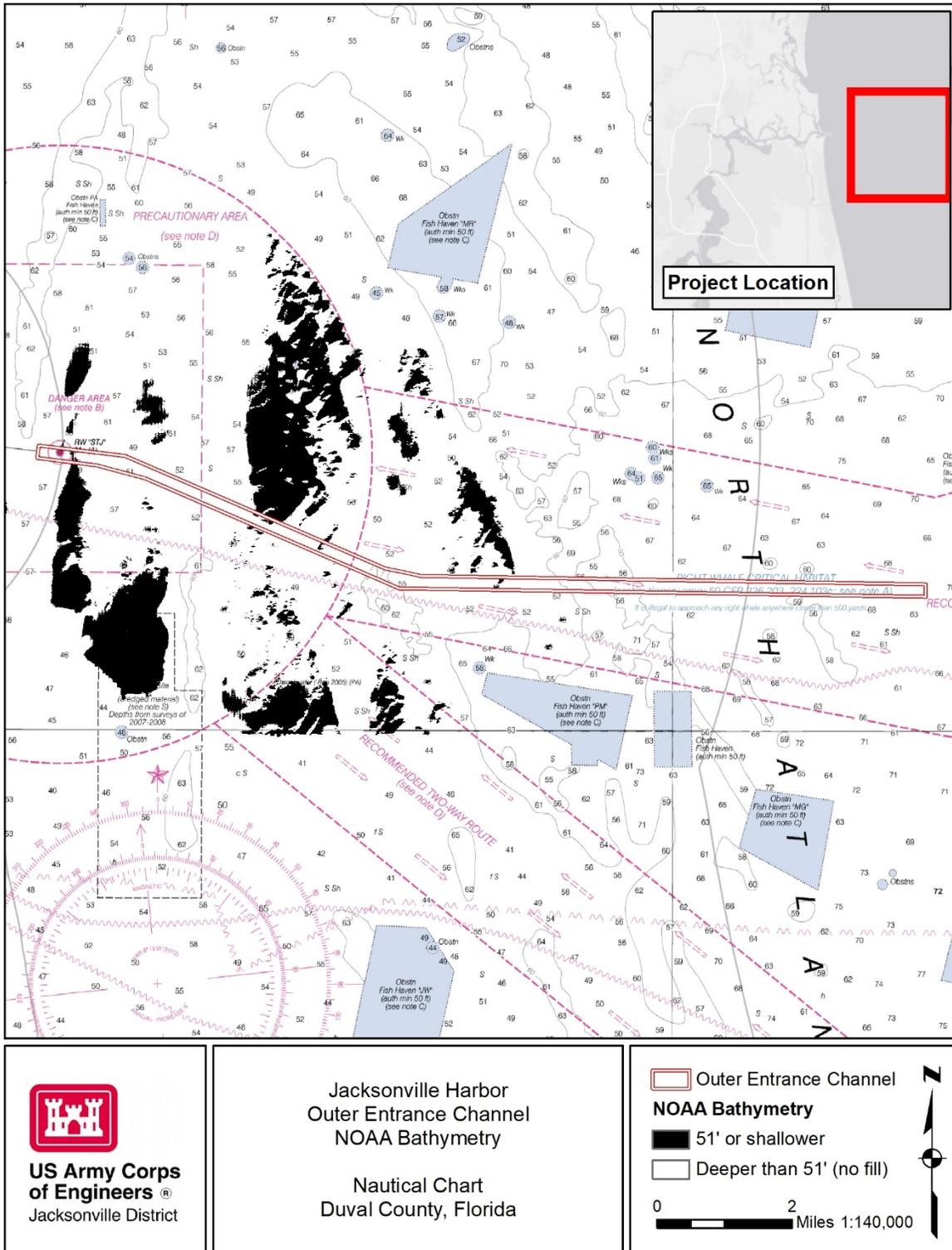


Figure 3: Jacksonville Harbor Outer Channel Extension Bathymetry

d. Public Participation

The Jacksonville District Corporate Communications Office continually keeps the affected public informed on Jacksonville District projects and activities. There are no planned activities, public participation meetings or workshops that could generate issues needing provision to review teams. The approved RP will be posted on the SAJ Internet. Any comments or questions regarding the RP will be addressed by the SAJ.

e. In-Kind-Contributions by Project Sponsor

Products and analyses provided by non-Federal sponsors as in-kind services are subject to DQC, ATR, BCOES, and SAR reviews. There will not be in-kind contributions for this effort.

3. DISTRICT QUALITY CONTROL

a. Requirements

All implementation documents (including supporting data, analyses, environmental compliance documents, etc.) shall undergo a DQC. A DQC is an internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the PMP. DQC will be performed on the Plans and Specifications (P&S) and the Design Documentation Report (DDR) in accordance with SAJ's Engineering Division Quality Management System (EN QMS). The EN QMS 02611 defines DQC as the sum of two reviews, Discipline Quality Check and Review (DQCR) and Product Quality Control Review (PQCR).

b. Documentation

DQCRs occur during the design development process and are carried out as a routine management practice by each discipline. Checklists are utilized by each discipline to facilitate the review and to document the DQCR review comments. Certification of the DQCR is signed by the Section Chief certifying that all design analyses and products have been completed in accordance with the EN QMS process prior to release from the Section.

The PQCR shall ensure consistency and effective coordination across all disciplines and shall assure the overall coherence and integrity of the products. Review comments and responses for this review will be documented in DrCheckssm. The PQCR shall be certified by the Engineering Technical Lead (ETL), all applicable Section and Branch Chiefs, and the Division Chief. This PQCR certification signifies that all DQCR Certifications are complete, as well as the PQCR.

4. AGENCY TECHNICAL REVIEW

a. Risk Informed Decision on Appropriate Level of Review

The project is new construction widening and deepening from 40 feet to 47 feet. PED phase implementation documents are being prepared. The magnitude of the dredging (approximately 100,000 cy) of the Outer Channel Extension equates to approximately 0.56% of the total 47' deepening project volume (18 Mcy) and the PDT determined the best contracting strategy is to add the work to a routine maintenance dredging contract. The Outer Channel Extension work will be accomplished by dredging the area to the required depth of -51' MLLW. The team will be working under known parameters and conditions by utilizing hydrographic surveys and new core boring analysis results. Through consultation with SAD, the determination was made that given the limited project scope and magnitude, an ATR of the intermediate P&S and DDR documents will not be required assuming that investigations validate that the material is only a thin layer of sand and rock is not found.

b. Agency Technical Review Scope.

In accordance with the decision above, no ATR will be undertaken. However, if the core borings come back and show rock will need to be dredged, the Outer Channel Extension work will not be part of the O&M contract, as it will require different dredging equipment. An ATR will be performed if there is rock.

5. BIDDABILITY, CONSTRUCTABILITY, OPERABILITY, ENVIRONMENTAL, AND SUSTAINABILITY (BCOES) REVIEW

The value of a BCOES review is based on minimizing problems during the construction phase through effective checks performed by knowledgeable, experienced personnel prior to advertising for a contract. BCOES review requirements must be emphasized throughout the planning and design processes for all programs and projects, including during planning and design. This will help to ensure that the government's contract requirements are clear, executable, and readily understandable by private sector bidders or proposers. It will also help ensure that the construction may be done efficiently and in an environmentally sound manner, and that the construction activities and projects are sufficiently sustainable. Effective BCOES reviews of design and contract documents will reduce risks of cost and time growth, unnecessary changes and claims, as well as support safe, efficient, sustainable operations and maintenance by the facility users and maintenance organization after construction is complete. A BCOES Review will be conducted for this project. Requirements and further details are stipulated in ER 1110-1-12, ER 415-1-11, and SAJ EN QMS 02611.

6. INDEPENDENT EXTERNAL PEER REVIEW

a. General.

EC 1165-2-217 provides guidance for the implementation of IEPR according to Sections 2034 and 2035 of the Water Resources Development Act (WRDA) of 2007 (Public Law (P.L.) 110-114). The EC addresses review procedures for both the Planning and the Design and Construction Phases (also referred to in USACE guidance as the Feasibility and the Pre-construction, Engineering and Design Phases). The EC defines Section 2035 Safety Assurance Review (SAR), Type II Independent External Peer Review (IEPR). The EC also requires Type II IEPR be managed and conducted outside the Corps of Engineers.

b. Type I Independent External Peer Review (IEPR) Determination.

A Type I IEPR is primarily associated with decision documents. A Type I IEPR is not applicable to the implementation documents covered by this Review Plan.

c. Type II Independent External Peer Review (IEPR) Determination (Section 2035).

This project does not trigger WRDA 2007 Section 2035 factors for Safety Assurance Review (termed Type II IEPR in EC 1165-2-217). Therefore, a review under Section 2035 is not required. The factors in determining whether a review of design and construction activities of a project are necessary as stated under Section 2035, along with the applicability statements for this RP, are as follows:

- (1) Does failure of the project pose a significant threat to human life?

This project consists of channel dredging and failure of the navigation channel will not pose a significant threat to human life.

- (2) Does the project involve the use of innovative materials or techniques?

This project will utilize methods and procedures used by the Corps of Engineers on other similar works.

- (3) Does the project design require redundancy, resiliency, or robustness?

The concept of redundancy does not apply to channel dredging projects.

- (4) Does the project have a unique construction sequencing or a reduced or overlapping design construction schedule?

This project's construction sequence and schedule have been used successfully by the Corps of Engineers on other similar works. Construction schedules do not have unique sequencing and activities are not reduced or overlapped.

Based on the discussion above, the District Chief of Engineering, as the Engineer-In-Responsible-Charge, does not recommend a Type II IEPR Safety Assurance Review of the P&S.

7. POLICY AND LEGAL COMPLIANCE

The Jacksonville District Office of Counsel reviews all contract actions for legal sufficiency in accordance with Engineer Federal Acquisition Regulation Supplement 1.602-2 Responsibilities. The subject implementation documents and supporting environmental documents will be reviewed for legal sufficiency prior to advertisement.

8. MODEL CERTIFICATION AND APPROVAL

No engineering models are being used to prepare the documents covered by this RP.

9. PROJECT DELIVERY TEAM DISCIPLINES

Organization
Civil Engineering / Dredging
Geotechnical Engineering
Hydrogeology and Geology
Environmental

Table 1: PDT Members

10. BUDGET AND SCHEDULE

a. Schedule.

Milestone	Task	Start Date	End Date
CW310	Draft P&S complete	20 Mar 2020	8 May 2020
	DQCR	8 May 2020	19 May 2020
	PQCR/DQC	19 May 2020	17 June 2020
	BCOES	10 July 2020	21 Aug 2020
CW320	BCOES Certification	21 Aug 2020	3 Sep 2020
CW400	Advertisement	18 Sep 2020	20 Oct 2020

Table 2: Project Schedule Milestones

11. REVIEW PLAN POINTS OF CONTACT

Title	Organization	Phone
Quality Manager	CESAD-RBT	[REDACTED]
Review Manager	CESAJ-EN-Q	[REDACTED]

Table 3: Review Plan Point of Contacts

ATTACHMENT A: APPROVED REVIEW PLAN REVISIONS

Revision Date	Description of Change	Page / Paragraph Number

Table 4: Review Plan Revisions

ATTACHMENT B: PARTIAL LIST OF ACRONYMS AND ABBREVIATIONS

<u>Acronyms</u>	<u>Defined</u>
AFB	Alternatives Formulation Briefing
ATR	Agency Technical Review
BCOES	Biddability, Constructability, Operability, Environmental, and Sustainability Review
CAP	Continuing Authorities Program
CERCAP	Corps of Engineers Reviewer Certification and Access Program
CY	Cubic Yards
DDR	Design Documentation Report
DQC	District Quality Control
DQCR	Discipline Quality Control Review
EC	Engineering Circular
ER	Engineering Regulation
EA	Environmental Assessment
ERDC-CERL	Engineer Research and Development Center – Construction Engineering Research Laboratory
ESA	Endangered Species Act
ETL	Engineering Technical Lead
FDEP	Florida Department of Environmental Protection
FONSI	Findings of No Significant Impacts
FSCA	Feasibility and Cost Sharing Agreement
FY	Fiscal Year
GRR	General Reevaluation Report
IEPR	Independent External Peer Review
LPP	Locally Preferred Plan
MCX	Mandatory Center of Expertise
MLLW	Mean Low Low Water
MSC	Major Subordinate Command
NAS	National Academy of Sciences
NEPA	National Environmental Policy Act
ODMDS	Ocean Dredged Material Disposal Site
OMB	Office of Management and Budget
OMRR&R	Operation, Maintenance, Repair, Replacement and Rehabilitation
P&S	Plans and Specifications
PED	Preconstruction Engineering and Design
PDT	Project Delivery Team
PM	Project Manager
PMP	Project Management Plan

<u>Acronyms</u>	<u>Defined</u>
PPA	Project Partnering Agreement
PQCR	Product Quality Control Review
QA	Quality Assurance
QCP	Quality Control Plan
QMP	Quality Management Plan
QMS	Quality Management System
RMC	Risk Management Center
RMO	Review Management Organization
RP	Review Plan
RTS	Regional Technical Specialist
SAJ	South Atlantic Jacksonville District Office
SAD	South Atlantic Division Office
SAR	Safety Assurance Review (also referred as Type II IEPR)
SME	Subject Matter Expert
USACE	U.S. Army Corps of Engineers
WRDA	Water Resources Development Act

Table 5: Abbreviations