



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

REPLY TO
ATTENTION OF

CESAD-RBT

26 October 2017

MEMORANDUM FOR COMMANDER, JACKSONVILLE DISTRICT

SUBJECT: Approval of the Review Plan for the St. Johns Shore Protection Project 2017 Beach Periodic Nourishment, St. Johns County, Florida

1. References:

a. Memorandum, CESAJ-EN-Q, 02 Oct 2017, subject: Approval of Review Plan for St. Johns Shore Protection Project, St. Johns County, Florida (Encl).

b. EC 1165-2-214, Civil Works Review, 15 December 2012.

2. The Review Plan (RP) for the St. Johns Shore Protection Project 2017 periodic nourishment submitted by the Jacksonville District via reference 1.a has been reviewed by this South Atlantic Division (SAD) and is hereby approved in accordance with reference 1.b above.

3. SAD concurs with the District's RP recommendation that Agency Technical Review is not needed on this design effort since this periodic nourishment is within the same previously constructed template limits and will use the same ebb shoal material source as the 2012 periodic nourishment. We also concur with the determination of the District Chief of Engineering and conclusion in the RP that a Type II Independent External Peer Review (IEPR) is not required on the Design Documentation Report and Plans and Specifications. The primary basis for our IEPR concurrence is that the failure or loss of the features associated with this periodic nourishment will not pose a significant threat to human life.

4. The District should take steps to post the approved RP to its website and provide a link to CESAD-RBT. Before posting to the web site, 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.

5. The SAD point of contact is [REDACTED].

Encl

[REDACTED]
Brigadier General, USA
Commanding

CF:

[REDACTED]



REPLY TO
ATTENTION OF

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

CESAJ-EN-Q

02 OCT 2017

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

SUBJECT: Approval of Review Plan for St. Johns Shore Protection Project, St. Johns County, Florida

1. References:

- a. EC 1165-2-214, Civil Works Review, 15 Dec 12.
- b. WRDA 1986, PL 99-662, 17 Nov 86 (Project Authorization).

2. I hereby request approval of the enclosed Review Plan and concurrence with the conclusion that a Type II Independent External Peer Review (IEPR) of the subject project is not required. The recommendation to exclude Type II IEPR is based on the EC 1165-2-214 Risk Informed Decision Process as presented in the Review Plan. Documents to be reviewed include the plans, specifications, and design documentation report. The Review Plan complies with applicable policy and has been coordinated with the CESAD. It is my understanding that non-substantive changes to this Review Plan, should they become necessary, are authorized by CESAD.

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

4. If you have any questions regarding the information in this letter, please feel free to contact me or you may contact [REDACTED].

Encl

[REDACTED]
Colonel, EN
Commanding

PROJECT REVIEW PLAN

For

Preconstruction, Engineering and Design Phase Implementation Documents

For

St. Johns Shore Protection Project

St. Johns County, Florida

Project P2 Number: 113172

Jacksonville District

Oct 2017



**US Army Corps
of Engineers**®

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ATTACHMENT A - Approved Review Plan Revisions

ATTACHMENT B - Partial List of Acronyms and Abbreviations

1. PURPOSE AND REQUIREMENTS

a. Purpose

This Review Plan defines the scope and level of review activities for the St. Johns Shore Protection Project in St. Johns County, Florida. As discussed below, the review activities consist of a District Quality Control (DQC) effort and a Biddability, Constructability, Operability, Environmental, and Sustainability (BCOES) Review. Also as discussed below, an Agency Technical Review (ATR) is not recommended. The project is in the Pre-Construction, Engineering and Design (PED) phase. The implementation documents to be reviewed are Plans and Specifications (P&S) and a Design Documentation Report (DDR). Upon approval, this Review Plan will be included into the Project Management Plan (PMP) for this project as an appendix to the Quality Management Plan (QMP).

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 1165-2-214, "Civil Works Review", 15 December 2012
- (4). ER 415-1-11, "Biddability, Constructability, Operability, Environmental, and Sustainability (BCOES) Review", 1 January 2013
- (5). SAJ EN QMS 02611, "SAJ Quality Control of In-House Products: Civil Works PED", 21 November 2011
- (6). SAJ EN QMS 08550, "BCOES Reviews", 21 September 2011
- (7). Enterprise Standard (ES) 08025, "Government Construction Quality Assurance Plan and Project/Contract Supplements"
- (8). Enterprise Standard (ES) 08026, "Three Phase Quality Control System"
- (9). Project Management Plan, St. Johns Shore Protection Project St. Johns County, Florida, P2 Number 113172

c. Requirements

This Review Plan was developed in accordance with EC 1165-2-214, 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 U.S. Army Corps of Engineers (USACE) decision, implementation, and operations and maintenance documents and other work products. The EC outlines five levels of review: District Quality Control (DQC), Agency Technical Review (ATR), and an Independent External Peer Review (IEPR), Policy and Legal Review, and a Biddability, Constructability, Operability, Environmental, and Sustainability (BCOES) Review.

d. Review Plan Approval and Updates

The South Atlantic Division Commander is responsible for approving this Review Plan. The Commander's approval reflects vertical team input (involving district, MSC, RMO, and HQUSACE members) as to the appropriate scope and level of review. Like the PMP, the

Review Plan is a living document and may change as the project progresses. The Jacksonville District is responsible for keeping the Review Plan up to date. Minor changes to the Review Plan since the last MSC Commander approval are documented in Attachment A. Significant changes to the Review Plan (such as changes to the scope and/or level of review) will be re-approved by the MSC Commander following the process used for initially approving the plan. The latest version of the Review Plan, along with the Commanders' approval memorandum, will be posted on the Jacksonville District's webpage. The latest Review Plan will be provided to the RMO and home MSC.

e. Review Management Organization

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

2. PROJECT INFORMATION

a. Project Background

The initial restoration of the St. Johns County Shore Protection Project (SPP), completed in January 2003, extended approximately 2.8 mi from FDEP monument R-137A (2.7 mi south of St. Augustine Inlet in Anastasia State Park) to FDEP monument R-151 in the City of St. Augustine Beach, St. Johns County, Florida (Figure 1). The state of Florida, piggybacking on the federal project, extended the beach restoration project approximately 0.9 mi north into Anastasia State Park to FDEP monument T-132. The initial restoration (referred to as the 2002 project) occurred in two phases as follows. Between September and October 2001, USACE placed sand approximately 1.1 mi from R-145 south to R-151 on St. Augustine Beach before funding difficulties interrupted construction. USACE resumed construction in April 2002 and completed the project in January 2003.

The first nourishment (referred to as the 2005 project) occurred before the anticipated nourishment interval due to severe erosion during the 2004 hurricane season. In response to the storms, the U.S. Congress appropriated emergency funds for beach nourishment and Taylor Engineering applied for and received from FDEP, a one-year extension to the existing five-year permit issued for the initial project.

Construction of the first nourishment began in June 2005 and concluded in November 2005. The project extended approximately 2.8 mi from monument R-137A to R-151. The second nourishment (referred to as the 2012 project) extended approximately 1.5 mi from monument R-139 to R-147. An agreement between USACE and dissenting property owners limited the permitted beach fill volume to approximately 2.1 million cubic yards (mcy); this volume limitation inhibited construction of the full 2.8-mile permitted project. Project construction occurred from February to September 2012.

All projects used a portion of the St. Augustine Inlet ebb shoal as the borrow area. The 2012 project included the southern lobe of the ebb shoal (i.e., south of the navigation channel), the federally authorized navigation channel within the inlet, a 200-ft widener along the south side of the navigation channel, and the portion of Porpoise Point that encroaches into the navigation easement area. All projects combined have dredged and placed approximately 9.4 mcy on St. Augustine Beach.



Figure 1: St. Johns County SPP Location

Table 1 below provides a summary of the nourishment history for the St. Johns Shore Protection Project.

Table 1: Nourishment History

Project	Contractor	Volume Dredged (mcy)	Volume Placed (mcy)	Placement Area	Construction Dates
2002 Project	Great Lakes Dredge and Dock Co.	4.5	4.2	R-145 to R-151	Sept. 2001– Oct. 2001
	Great Lakes Dredge and Dock Co.			T-132 to R-151	Apr. 2002 – Jan. 2003
2005 Project	Great Lakes Dredge and Dock Co.	2.8	2.8	R-137A to R-151	Jun. 2005 – Nov. 2005
2012 Project	Marinex Construction, Inc.	2.1	2.1	R-139 to R-147	Feb. 2012 – Sep. 2012

b. Project Authorization

This project was authorized by WRDA 86:

"SEC. 501. AUTHORIZATION OF PROJECTS. (a) Authorization of Construction.--The following works of improvement for the benefit of shoreline protection are adopted and authorized to be prosecuted by the Secretary substantially in accordance with the plans and subject to the conditions recommended in the respective reports designated in this subsection, except as otherwise provided in this subsection. Construction of the projects authorized in this title shall be subject to determinations of the Secretary, after consultation with the Secretary of the Interior that the construction will be in compliance with the Coastal Barrier Resources Act (Public Law-348). St. Johns County, Florida The project for shoreline protection, St. Johns County, Florida: Report of the Chief of Engineers, dated February 26, 1980, at a total cost of \$18,200,000, with an estimated first Federal cost of \$11,100,000 and an estimated first non-Federal cost of \$7,100,000. To the maximum extent feasible, the Secretary shall construct such project so as to avoid adverse effects on sea turtle nesting."

Then the authority was modified by WRDA 99:

"SEC. 316. ST. AUGUSTINE, ST. JOHNS COUNTY, FLORIDA. The project for shore protection and storm damage reduction, St. Augustine, St. Johns County, Florida, authorized by section 501(a) of the Water Resources Development Act of 1986 (100 Stat. 4133) is modified to include navigation mitigation as a project purpose and to be carried out by the Secretary substantially in accordance with the general reevaluation report dated November 18, 1998, at a total cost of \$17,208,000, with an estimated Federal cost of \$13,852,000 and an estimated non-Federal cost of \$3,356,000, and at an estimated average annual cost of

\$1,360,000 for periodic nourishment over the 50-year life of the project, with an estimated annual Federal cost of \$1,095,000 and an estimated annual non-Federal cost of \$265,000.”

c. Current Project Description

St. Johns County Shore Protection Project FY17 work will nourish the eroded shoreline in St. Johns County between FDEP monuments R-139 in the north to R-145 in the south with approximately 775,000 cubic yards of material. The borrow area for the current project is the St. Augustine ebb shoal located in close proximity to the inlet from monuments R-123 to T-129 (Figure 2) and the navigation channel.



Figure 2: St. Johns County SPP Borrow Area

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 Review Plan will be posted on the Jacksonville District Internet. Any comments or questions regarding the Review Plan will be addressed by the Jacksonville District.

e. Civil Works Cost Engineering Mandatory Center of Expertise Certification

The cost related documents associated with the P&S and DDR and the associated contract do not require external peer review or certification by the Cost Engineering Mandatory Center of Expertise (MCX).

3. DISTRICT QUALITY CONTROL

a. Requirements

District Quality Control and Quality Assurance activities for DDRs and P&S are stipulated in ER 1110-1-12, Engineering & Design Quality Management and SAJ EN QMS 02611. The subject project DDR and P&S will be prepared by the Jacksonville District using ER 1110-1-12 procedures and will undergo District Quality Control by Jacksonville District personnel. SAJ EN QMS 02611 defines DQC as the sum of two reviews, Discipline Quality Control Review (DQCR) and Product Quality Control Review (PQCR). Product Quality Control Review Certification is the DQC Certification and will precede ATR.

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. Certifications of the Discipline Quality Check and Review are signed by the Engineering Division Branch Chiefs certifying that the DQCR on all design analyses and products have been completed in accordance with the EN QMS process prior to release from their Branch.

The PQCR shall ensure consistency and effective coordination across all disciplines and to assure the overall coherence and integrity of the products. Review comments and responses for this review will be documented in DrChecks. The Product Quality Control Review shall be QC certified by the Lead Engineer and all applicable Engineering Division Section and Branch Chiefs. This PQCR certification signifies that all Discipline Specific Quality Checks and Review Certification are complete, as well as the Product Quality Control Reviews.

4. AGENCY TECHNICAL REVIEW

An ATR review is not recommended since this periodic nourishment mirrors the 2012 periodic nourishment, which was successfully constructed between February and September in 2012. The construction limits of this contract are within the same limits as the 2012 periodic nourishment and will be constructed using the same means and methods contract since the material source will be the ebb shoal. The beach template itself has not changed in any way (e.g. berm width, elevation, alongshore limits, etc...). Since only 895,000 cubic yards is now permitted to be removed from the inlet complex (includes the material sources listed above) as limited by the Inlet Management Plan (IMP) which the FDEP permit references, approximately ~775,000 cubic yards of material can actually be placed for this periodic nourishment event assuming 13% losses which is based on historical production rates. So this contract cannot place the same quantity as the 2002, 2005, and 2012 projects as shown in Table 1. The scope of the this project is within the authorized, permitted, and previously constructed template limits and follows the same means, methods and sediment source methodology as the 2012 periodic nourishment contract, therefore no ATR review is recommended.

5. BIDDABILITY, CONSTRUCTABILITY, OPERABILITY, ENVIRONMENTAL, AND SUSTAINABILITY 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. Biddability, constructability, operability, environmental, and sustainability 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. Multiple BCOES Reviews 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 08550.

6. INDEPENDENT EXTERNAL PEER REVIEW

a. General

EC 1165-2-214 provides implementation guidance for both 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 and Construction 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 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 Determination

This project does not trigger WRDA 2007 Section 2035 factors for Safety Assurance Review (termed Type II IEPR in EC 1165-2-214), and 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 this Review Plan's applicability statements follow.

- (1) The failure of the project would pose a significant threat to human life.

This project will utilize available borrow areas to renourish portions of St. Johns County beaches to combat erosion and increase beach width. Failure will not pose a threat to human life.

- (2) The project involves 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) The project design lacks redundancy.

The project features are not complex in nature and do not employ the concept of redundancy.

(4) The project has unique construction sequencing or a reduced or overlapping design construction schedule.

This project's construction does not have unique sequencing or a reduced or overlapping design. The construction sequence and schedule has been used successfully by the Corps of Engineers on other similar works.

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 and DDR.

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

This project will not use any engineering models that have not been approved for use by USACE.

9. PROJECT DELIVERY TEAM DISCIPLINES

PDT Disciplines
Civil/Dredge Engineering
Construction Management
Coastal Geology

10. SCHEDULE

a. Project Schedule.

Milestone	Task	Start Date	End Date
CW310	Draft P&S Complete	18-AUG-2016	30-SEP-2016
	DQCR	3-OCT-2016	11-OCT-2016
	PQCR/DQC*	12-OCT-2016	1-NOV-2016
	BCOES Review	11-JAN-2017	1-FEB-2017
CW320	BCOES Certification	12-JUN-2017	12-JUN-2017
CW400	Advertisement	5-JUL-2017	3-AUG-2017

* SAJ EN QMS 02611 defines DQC as the sum of DQCR and PQCR.

ATTACHMENT A: APPROVED REVIEW PLAN REVISIONS

Revision Date	Description of Change	Page / Paragraph Number

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
EA	Environmental Assessment
ER	Engineering Regulation
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 and Development Act