



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

CESAD-RBT

2 Aug 2017

MEMORANDUM FOR COMMANDER, JACKSONVILLE DISTRICT

SUBJECT: Approval of the Review Plan for the Martin County Shore Protection Project, Hutchinson Island 2017 Periodic Nourishment, Martin County, Florida

1. References:

a. Memorandum, CESAJ-EN-Q, 12 July 2017, subject: Approval of Review Plan for Shore Protection Project, Martin County, Florida, Beach Renourishment 2017, Hutchinson Island (Encl).

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

2. The Review Plan (RP) for the Martin County Shore Protection Beach Project 2017 periodic nourishment submitted by the Jacksonville District via reference 1.a has been reviewed by this office. Some minor clarification edits to the RP were coordinated with [REDACTED], your point of contact. The enclosed RP, with the coordinated edits incorporated, is hereby approved in accordance with reference 1.b above.

3. As indicated in the RP, the Martin County Shore Protection Project 2017 periodic nourishment is within the authorized permitted and previously constructed template limits and also follows the same means and methods as the Martin County 2013 periodic nourishment contract. Therefore, the South Atlantic Division Office (SAD) concurs with the District's RP recommendation that Agency Technical Review is not needed on this design effort. 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 Specification. 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 web site 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.

CESAD-RBT

SUBJECT: Approval of the Review Plan for the Martin County Shore Protection Project, Hutchinson Island 2017 Periodic Nourishment, Martin County, Florida

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

[REDACTED]

Encl

[REDACTED]  
Brigadier General, USA  
Commanding

CF:

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]



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

REPLY TO  
ATTENTION OF

CESAJ-EN-Q

12 JUL 2017

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

SUBJECT: Approval of Review Plan for Shore Protection Project, Martin County, Florida, Beach Renourishment 2017, Hutchinson Island

1. References:

- a. EC 1165-2-214, Civil Works Review, 15 Dec 12.
- b. WRDA 1990, PL 101-640, 28 Nov 90 (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

### **Martin County Shore Protection Project FY17**

**Martin County, Florida**

**Project P2 Number: 113164**

**Jacksonville District**

**July 2017**



**US Army Corps  
of Engineers** ®

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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 Martin County Shore Protection Project in Martin County. 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 Independent External Peer Review (IEPR) and an Agency Technical Review (ATR) are 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, Martin County Shore Protection Beach Renourishment Project Martin County, Florida, P2 Number 113164

### **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.

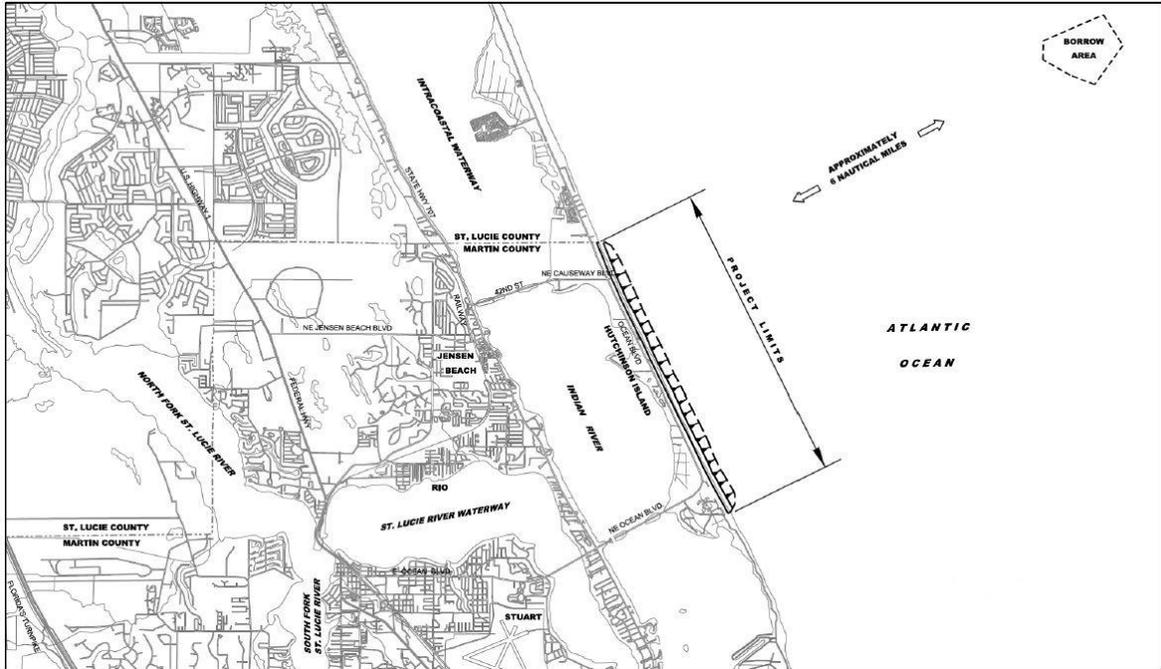
**e. Review Management Organization**

The South Atlantic Division (SAD) is designated as the Review Management Organization (RMO).

**2. PROJECT INFORMATION**

**a. Project Background**

The Martin County, Florida, Shore Protection Project is located on Anna Maria Island on the west coast of Florida. Martin County is located on Florida's east coast, 100 miles north of Miami and due east of Lake Okeechobee. The coastal area consists of the Hutchinson Island area, which is a barrier island, separated from the mainland by the Indian River Lagoon. Martin County's ocean front beaches extend for 21.5 miles between St. Lucie County and Palm Beach County and include Jensen Beach, Sailfish Point, St. Lucie Inlet State Preserve, Hobe Sound National Wildlife Refuge, and the Town of Jupiter Island. The Federal Shore Protection Project is approximately 4.0 miles in length and runs from the St. Lucie County line (R-1) south to Florida Department of Environmental Protection (DEP) monument R-25.



**Figure 1: Martin County Project Map**

**b. Project Authorization**

This project is a Federally authorized and constructed project; it was constructed between 1995 and 1996. The project was authorized by the Water Resource Development Act of 1990 passed 28 November 1990 (Public Law 101-640) in accordance with the report of the Chief of Engineers dated 20 November 1989. The final Environmental Impact Statement was filed with the Environmental Protection Agency in 1986. The authorized plan consisted of restoration of 4.0 miles of shorefront southward from the St. Lucie County line to near the limit of Stuart Public Park (R-1 to R-25).

Prior to construction, a General Design Memorandum (GDM) dated June 1994 was prepared. Discretionary authority was used to reduce the project length to 3.75 miles (R-1 to R-23) to avoid adverse environmental impacts to hard bottoms, and the project berm was tapered between R-23 and R-25 to further reduce adverse hard bottom impacts. The periodic nourishment interval period was changed from 8 to 11 years, with an estimated loss of 590,000 cy every 11 years based upon an annual erosion rate of 60,600 cy. Subsequent to the initial construction of R-1- R23, it was determined that there were no hard bottom impacts in R23-R25 (0.25 mile reach) and this portion of the project was constructed at 100% non-Federal cost.

The October 2011 Limited Re-evaluation Report (LRR) is the last approved document for the Martin County SPP Project. It revised the authorized renourishment interval to 13 years based upon an annual erosion rate of 60,600 cy to more accurately reflect erosion over the project history. Each renourishment event will place 787,800 cy on the project beach.

The project is authorized for 50 years from date of initial construction in 1996. A project cooperation agreement (PCA) was executed between the Department of the Army and the non-Federal sponsor on 3 August 1995.

**c. Current Project Description**

The project will nourish eroded shoreline in Martin County between Florida Department of Environmental Protection (FDEP) Range Monuments R-1 to R-25. The project beach has a sloping berm with a maximum berm elevation of +7.5 feet, NAVD88, and a minimum berm elevation no less than +5.5 feet, NAVD88. The width of the berm is 100 feet from the Construction Baseline with a slope of 1 Vertical on 50 Horizontal from +7.5 feet, NAVD88 to its seaward limit at +5.5 feet. The foreshore slope of 1 Vertical on 10 Horizontal commences at the seaward limit of the berm to tie into existing grade. The sand for the project will be sourced from an offshore borrow area. Project work also includes, but is not limited to, vibration control and monitoring, environmental species monitoring, turbidity monitoring.

**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).

**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 2013 periodic nourishment, which was successfully constructed between March 2013 and April 2013. A Project Implementation Report (PIR) to assess the damages from Hurricane Matthew was approved in February 2017 and recommended the use of Flood Control and Coastal Emergency Act funds along with an immediate need for renourishment (using cost shared funds) to repair the beach from the storm and to protect from future storms. The construction limits of this contract are within the same limits as the 2013 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.). 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 2013 periodic nourishment contract. Therefore, an ATR is not 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. A BCOES review will be conducted during the Final Design Phase. 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 renourish portions of Hutchinson Island Beach in Martin County. 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

<b>PDT Disciplines</b>
Civil/Dredge Engineering
Construction Management
Coastal Geology

## 10. SCHEDULE

<b>Milestone</b>	<b>Task</b>	<b>Start Date</b>	<b>End Date</b>
CW310	Draft P&S Complete	3-MAR-2017	31-MAY-2017
	DQCR	1-JUN-2017	5-JUN-2017
	PQCR/DQC*	6-JUN-2017	3-JUL-2017
	BCOES Review	5-JUL-2017	8-AUG-2017
CW320	BCOES Certification	8-AUG-2017	8-AUG-2017
CW400	Advertisement **	24-JUL-2017	22-AUG-2017
CC800	Award	29-SEP-2017	29-SEP-2017

\* SAJ EN QMS 02611 defines DQC as the sum of DQCR and PQCR. Schedule adjusted during PQCR to ensure receipt of permitting modification for southerly limit received prior to advertisement.

\*\* Concurrent BCOES and advertisement in order to meet FY17 award date.

**ATTACHMENT A: APPROVED REVIEW PLAN REVISIONS**

<b>Revision Date</b>	<b>Description of Change</b>	<b>Page / Paragraph Number</b>

**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