



REPLY TO  
ATTENTION OF

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

02 JAN 2013

CESAD-RBT

MEMORANDUM FOR COMMANDER, JACKSONVILLE DISTRICT (CESAJ-EN-QC/  
WILLIAM K. WIGNER/WILLIAM E. SCHAEFER)

SUBJECT: Approval of Review Plan for the Plans and Specifications and Design Documentation Report for the 2014 Beach Renourishment for the Fort Pierce Shore Protection Project, St. Lucie County, Florida

1. References:

a. Memorandum, CESAJ-EN-QC, 31 October 2012, Subject: Approval of Review Plan for 2014 Beach Renourishment Plans and Specifications with Design Documentation Report for Fort Pierce Shore Protection Project, St. Lucie County, Florida (Enclosure).

b. EC 1165-2-209, Civil Works Review Policy, 31 January 2010.

2. The enclosed Review Plan for the Plans and Specifications for 2014 Beach Renourishment for the Fort Pierce Shore Protection Project, St. Lucie County, Florida has been reviewed by this office. As a result of this review, minor changes were coordinated with your staff. The enclosed Review Plan with the coordinated changes incorporated is hereby approved in accordance with reference 1.b above.

3. We concur with the conclusion of the District Chief of Engineering that Type II Independent External Peer Review (Type II IEPR) is not required for this periodic renourishment of the Fort Pierce Shore Protection Project. The primary basis for our concurrence that a Type II IEPR is not required is that the failure or loss of the beach fill does not pose a significant threat to human life. We also concur with the conclusion that Agency Technical Review (ATR) is not required on this periodic renourishment effort since the design duplicates previous editions of the Plans and Specification that have been successfully used in the past.

4. The District should take steps to post the Review Plan 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 Review Plan, should they become necessary, will require new written approval from this office.

5. The SAD point of contact is Mr. James Truelove, CESAD-RBT, 404-562-5121.

DONALD E. JACKSON, JR.  
COL, EN  
Commanding

Encl



DEPARTMENT OF THE ARMY  
JACKSONVILLE DISTRICT CORPS OF ENGINEERS  
P.O. BOX 4970  
JACKSONVILLE, FLORIDA 32232-0019

REPLY TO  
ATTENTION OF

CESAJ-EN-Q

31 October 2012

MEMORANDUM FOR Commander, South Atlantic Division (CESAD-RBT)

SUBJECT: Approval of Review Plan for 2014 Beach Renourishment, Plans and Specifications with Design Documentation Report for Fort Pierce Shore Protection Project, St. Lucie County, Florida

1. References.

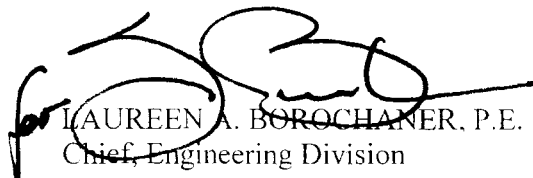
- a. EC 1165-2-209, Civil Works Review Policy, 31 January 2010
- b. WRDA 2007 H. R. 1495 Public Law 110-114, 08 Nov 07

2. I hereby request approval of the enclosed Review Plan and concurrence with the conclusion that Type II Independent External Peer Review (IEPR) of this project is not required. The Type II IEPR determination is based on the EC 1165-2-209 Risk Informed Decision Process as presented in the Review Plan. Approval of this plan is for the Periodic Nourishment Implementation Documents. The Review Plan complies with applicable policy, provides Agency Technical Review 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.

FOR THE COMMANDER:

Encl

  
LAUREEN A. BOROCHANER, P.E.  
Chief, Engineering Division

# **REVIEW PLAN**

## **Beach Renourishment 2014 Plans and Specifications with Design Documentation Report**

**For  
Fort Pierce  
Shore Protection Project**

**St. Lucie County, Florida**

**Jacksonville District**

**30 October 2012**

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.



**US Army Corps  
of Engineers** ®

**TABLE OF CONTENTS**

1. PURPOSE AND REQUIREMENTS..... 2  
2. PROJECT INFORMATION AND BACKGROUND ..... 2  
3. DISTRICT QUALITY CONTROL ..... 3  
4. AGENCY TECHNICAL REVIEW ..... 3  
5. INDEPENDENT EXTERNAL PEER REVIEW ..... 4  
6. MODEL CERTIFICATION AND APPROVAL ..... 5  
7. BUDGET AND SCHEDULE..... 5  
8. POINTS OF CONTACT ..... 6

REMOVED POC PRIOR TO POSTING

## 1. PURPOSE AND REQUIREMENTS

**a. Purpose.** This Review Plan defines the scope and level of review activities for the Fort Pierce Shore Protection Project. The review activities consist of a District Quality Control (DQC) effort. An Agency Technical Review (ATR) and an Independent External Peer Review (IEPR) are excluded from this review plan since the project has been previously constructed with the same means and methods with a low risk of failure. The project is in the Periodic Nourishment Phase and the related documents of Plans and Specifications (P&S) and a Design Documentation Report (DDR) are considered routine. The scope of work consists of the renourishment of a previously successful project. Upon approval, this review plan will be included into the Project Management Plan as an appendix to the Quality Management Plan.

### **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). FCA 1968, WRDA 1974, and WRDA of 1986 (Project Authorization)
- (4). EC 1165-2-209, Civil Works Review Policy, 31 January 2012
- (5) Project Management Plan, Dade County BEC, 113170

**c. Requirements.** This review plan was developed in accordance with EC 1165-2-209, 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 three levels of review: District Quality Control, Agency Technical Review, and Independent External Peer Review. Refer to the EC for the definitions and procedures for the three levels of review.

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

## 2. PROJECT INFORMATION AND BACKGROUND

The Fort Pierce, Florida Shore Protection Project in St. Lucie county, Florida was authorized by the River and Harbor Act of 1965 (PL 89-298, 79 Stat. 1089, 1092) in accordance with the recommendations of the Chief of Engineers in House Document (HD) 84, 89<sup>th</sup> Congress. The authorization provided for the restoration of 1.3 miles of shoreline south of Fort Pierce Inlet and for periodic nourishment as needed for a period of ten years following initial construction of the project.

Initial construction fill was placed in 1971. The firms Ocean Dredging, Inc. and C.S. Bean, Inc., placed 718,000 cubic yards (cy) of fill from an offshore borrow area on 1.3 miles of project shoreline, extending from the south jetty at Fort Pierce Inlet to the southern boundary of Kimberly Bergalis Park. This beach restoration widened the beach an average of 342 feet over the 1.3-mile project length. In 1980, the first nourishment of the project was performed with placement of 346,000 cy of sand from an offshore borrow area.

Under the authority of Section 156 of WRDA of 1976 (PL 94-587), the Chief of Engineers extended Federal participation to fifteen years from initial construction. Federal participation expired in 1986, fifteen years after the initial construction fill was placed in 1971.

Section 934 of WRDA of 1986 (PL 99-662) amended Section 156 of WRDA of 1976 to give the Secretary of the Army, acting through the Chief of Engineers, discretionary authority to extend Federal participation to the fiftieth year after the date of initial construction of a shore protection project. A Section 934 Reevaluation Report was completed in May 1995, which found

continued nourishment was economically and environmentally sound and the report, was approved, however Federal participation was not extended.

Although not approved by the USACE as discussed above, Congress added Section 506(a)(2) of WRDA of 1996 (PL 104-303) which authorized the extension of Federal participation in the periodic nourishment for a period of fifty years, beginning on the date of initiation of initial construction of the project. **Initial construction fill was placed in 1970**; therefore, Section 506(a)(2) of the WRDA 1996 extends Federal participation in periodic nourishment until 2020. In 1999, the second periodic nourishment was performed with placement of 908,000 cy of sand. Subsequently, the project has been nourished in 2003, 2004, 2005, 2007, 2009, and 2011.

### **Current Project**

The Beach Renourishment Project of 2014, Ft. Pierce Shore Protection Project, FL is located in St. Lucie County. The project is to nourish a 1.3-mile segment of beach south of Ft. Pierce Inlet, between FDEP Reference Monuments R-34 and R-41. The project includes a variable width (125-215 feet) berm with a crest elevation of +7.6 feet NAVD88 approximately. The construction berm includes a 50-foot design berm width and a width of 75 – 165 feet for the advance nourishment, at a slope of 1 vertical on 100 horizontal, and a foreshore slope of 1 vertical on 10 horizontal. Approximately 500,000 cubic yards of beach quality material will be placed on the beach for this nourishment event, and the project template shall not be exceeded. The material for this nourishment event will be obtained from a borrow area located approximately 3 miles offshore on Capron Shoal which is the historic borrow source for the project.

There are some environmental requirements that must be incorporated into the project design. Access to the beach for pumpout by pipeline must occur from Ft. Pierce inlet. Pipeline is not allowed to be placed in the nearshore due to the prolific hardbottom present. There is also an environmental window of construction between November and April 30<sup>th</sup>. This avoids the main part of the turtle nesting season.

### **3. DISTRICT QUALITY CONTROL**

District Quality Control and Quality Assurance activities for the project documents (DDR and P&S) are stipulated in ER 1110-1-12, Engineering & Design Quality Management. The subject project DDR and P&S will be prepared by the Jacksonville District using ER 1110-1-12 procedures and undergo DQC. Since the project documents of the previous project are being used to execute the current project, DQC Certification is deemed an effective means to verify quality control.

### **4. AGENCY TECHNICAL REVIEW**

#### **a. Risk Informed Decision on Appropriate Level of Review**

The EC 1165-2-209 for review policy directs the Project Delivery Team (PDT) to make a risk informed decision regarding the effectiveness of an ATR (Para 15). Review of the answers to the following questions from Para 15.b indicate that an ATR is not warranted since the same project area has been restored using material dredged from the same borrow source in the past with the same methods and means as envisioned for the subject P&S and the project design has performed as anticipated between renourishment cycles.

1) Does it include any design (structural, mechanical, hydraulic, etc)? Yes. The design duplicates previous editions of P&S that have been used successfully in the past.

- 2) Does it evaluate alternatives? No.
- 3) Does it include a recommendation? No.
- 4) Does it have a formal cost estimate? Yes, an Independent Government Estimate for the contract has been developed.
- 5) Does it have or will it require a NEPA document? Yes. The project uses an existing Environmental Assessment and requires a State of Florida Water Quality Certificate.
- 6) Does it impact a structure or feature of a structure whose performance involves potential life safety risks? No. There is no life safety risk associated with this dredging project.
- 7) What are the consequences of non-performance? The renourishment beach fill is a sacrificial fill section. Failure or non-performance of the nourishment would not in itself pose any safety issues as project monitoring implements its replacement such that the project function is maintained.
- 8) Does it support a significant investment of public monies? Yes.
- 9) Does it support a budget request? No. The project implements appropriated funds.
- 10) Does it change the operation of the project? No.
- 11) Does it involve ground disturbances? Yes, dredging and beach placement are in areas that have been disturbed in accordance with authorized purposes in the past.
- 12) Does it affect any special features, such as cultural resources, historic properties, survey markers, etc, that should be protected or avoided? No.
- 13) Does it involve activities that trigger regulatory permitting such as Section 404 or stormwater/NPDES related actions? Yes, however the project uses an existing Environmental Assessment and we are obtaining the Water Quality Certificate.
- 14) Does it involve activities that could potentially generate hazardous wastes and/or disposal of materials such as lead based paints or asbestos? No.
- 15) Does it reference use of or reliance on manufacturers' engineers and specifications for items such as prefabricated buildings, playground equipment, etc? No.
- 16) Does it reference reliance on local authorities for inspection/certification of utility systems like wastewater, stormwater, electrical, etc? No.
- 17) Is there or was there expected to be any controversy surrounding the Federal action associated with the work product? No.

## **5. INDEPENDENT EXTERNAL PEER REVIEW**

**a. General.** EC 1165-2-209 provides implementation guidance for both Sections 2034 and 2035 of the Water Resources Development Act (WRDA) of 2007 (Public Law 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 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 associated with decision documents. No decision documents are addressed or covered by this Review Plan. A Type I IEPR is not applicable to the documents covered by this Review Plan.

**c. Type II Independent External Peer Review Determination.** This shore protection project does not trigger WRDA 2007 Section 2035 factors for Safety Assurance Review (termed Type II IEPR in EC 1165-2-209). Therefore, a Type II IEPR review under Section 2035 and/or EC 1165-2-209 is not required. The factors in determining whether a review of design and construction activities of a project is necessary as stated under Section 2035 and EC 1165-2-209, along with the applicability statement of this review plan, follow:

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

*This project will perform a periodic nourishment that will re-establish a beach. The beach is designed to protect structures through its sacrificial nature and is continually monitored and renourished in accordance with program requirements and constraints. Failure or loss of the beach fill will not pose a significant threat to human life.*

- (2) The project involves the use of innovative materials or techniques.

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

- (3) The project design lacks redundancy.

*The beach fill design is in accordance with the USACE Coastal Engineering Manual. The manual does not employ the concept of redundancy for beach fill design.*

- (4) The project has a 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 installation sequence and schedule has been used successfully by the Corps of Engineers on other similar works.*

## **6. MODEL CERTIFICATION AND APPROVAL**

This shore protection project does not use any engineering models that have not been approved for use by USACE.

## **7. BUDGET AND SCHEDULE**

- a. Project Milestones.

Complete Pre-Final Submittals: 19 Apr 2013

District Quality Control: 22 Apr 2013 – 03 May 2013

BCOE: 13 May 2013 – 10 Jun 2013

Advertisement: 25 Oct 2013

- b. ATR Estimated Cost. An ATR is not anticipated.