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

REPLY TO
ATTENTION OF:

CESAD-RBT

17 May 2011

MEMORANDUM FOR COMMANDER, JACKSONVILLE DISTRICT (CESAJ-EN-T/ [redacted])

SUBJECT: Approval of the Review Plan for Periodic Nourishment Implementation Documents for Pinellas County Beach Erosion Control Project, Sand Key Segment, Pinellas County, Florida

1. References:

a. Memorandum, CESAJ-EN-T, 26 April 2011, Subject: Approval of the Review Plan for Periodic Nourishment Implementation Documents for Pinellas County Beach Erosion Control Project, Sand Key Segment, Pinellas County, Florida (Enclosure).

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

c. WRDA 2007 H. R. 1495 Public Law 110-114, 8 November 2007.

2. The enclosed Review Plan for Periodic Nourishment Implementation Documents for Pinellas County Beach Erosion Control Project Sand Key Segment dated 29 April 2011 submitted by reference 1.a, has been reviewed by this office and is approved in accordance with reference 1.b.

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 rehabilitation/renourishment of the Pinellas County Beach Erosion Control Project. The project does not have the factors that need addressing to assure public health, safety, and welfare as stipulated in Section 2035 Safety Assurance Review, WRDA 2007 H. R. 1495 Public Law 110-114..

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.

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

[redacted]

Encl

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

REPLY TO
ATTENTION OF

CESAJ-EN-T

13 May 2011

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

SUBJECT: Approval of Review Plan for Periodic Nourishment Implementation Documents for Pinellas County Beach Erosion Control Project, Sand Key Segment, Pinellas 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 are withheld from the posted version, in accordance with guidance.

FOR THE COMMANDER:

[redacted]

Encl

REVIEW PLAN

For
Periodic Nourishment
Implementation Documents

For
Pinellas County
Beach Erosion Control Project
Sand Key Segment

Pinellas County, Florida

Jacksonville District

29 April 2011

US Army Corps
of Engineers ®

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1. PURPOSE AND REQUIREMENTS

a. Purpose. This Review Plan defines the scope and level of review activities for the Pinellas County Beach Erosion Control project. The review activities consist of District Quality Control (DQC) and Agency Technical Review (ATR). The project is in the Periodic Nourishment Phase and the related documents are Implementation Documents that consist of Plans and Specifications (P&S) and a Design Documentation Report (DDR). 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 Aug 1999
(2). ER 1110-1-12, Engineering and Design Quality Management, 21 Jul 2006
(3). (4). EC 1165-2-209, Civil Works Review Policy, 31 January 2010
(4). Project Management Plan, Pinellas County BEC, 116684, 20 August 2010

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 work products. The EC outlines three levels of review: District Quality Control, Agency Technical Review, and Independent External Peer Review.

(1) District Quality Control (DQC). DQC is the review of basic science and engineering work products focused on fulfilling the project quality requirements defined in the Project Management Plan (PMP). It is managed in the home district and may be conducted by staff in the home district as long as they are not doing the work involved in the study, or overseeing contracted work that is being reviewed. Basic quality control tools include a Quality Management Plan providing for seamless review, quality checks and reviews, supervisory reviews, Project Delivery Team (PDT) reviews, etc. Additionally, the PDT is responsible for a complete reading of the report to assure the overall integrity of the report, technical appendices and the recommendations before approval by the District Commander. The Major Subordinate Command (MSC)/District quality management plans address the conduct and documentation of this fundamental level of review.

(2) Agency Technical Review (ATR). ATR is an in-depth review, managed within USACE, and conducted by a qualified team outside of the home district that is not involved in the day-to-day production of the project/product. The purpose of this review is to ensure the proper application of clearly established criteria, regulations, laws, codes, principles and professional practices. The ATR team reviews the various work products and assures that all the parts fit together in a coherent whole. ATR teams will be comprised of senior USACE personnel (Regional Technical Specialists (RTS), etc.), and may be supplemented by outside experts as appropriate. To assure independence, the leader of the ATR team shall be from outside the parent MSC.

(3) Type II Independent External Peer Review (IEPR). IEPR is the most independent level of review, and is applied in cases that meet certain criteria where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside of USACE is warranted. In accordance with Section 2035 of Water Resources Development Act (WRDA) of 2007 and EC 1165-2-209, a Type II IEPR (SAR) shall be conducted on design and construction activities for hurricane and storm risk management and flood risk management projects, as well as other projects where existing and potential hazards pose a significant threat to human life prior to initiation of physical construction and periodically thereafter until construction activities are completed. IEPR should occur on a regular schedule sufficient to inform the Chief of Engineers

on the adequacy, appropriateness, and acceptability of the design and construction activities for the purpose of assuring public health, safety, and welfare.

d. Review Management Organization (RMO). The South Atlantic Division (SAD) is designated as the RMO for the Periodic Nourishment Implementation Documents for Pinellas County Beach Erosion Control Project Sand Key Segment. The RMO is responsible for managing the review activities described in this Review Plan.

2. PROJECT INFORMATION AND BACKGROUND

The *USACE General Design Memorandum, Pinellas County, March 1997 (GDM97)* authorizes beach restoration and renourishment for Pinellas County known herein as: Pinellas County Beach Erosion Control Project or project. Pinellas County is centrally located on the west coast of Florida between the Gulf of Mexico and Tampa Bay.

The project extends along 25 miles of barrier island beaches from Dunedin Pass to Pass-A-Grille Pass. The project provides for the restoration of 5,000 feet of shoreline on Clearwater Beach Island, restoration of 41,700 feet of shoreline on Sand Key, restoration of 10,700 feet of shoreline on Treasure Island, nourishment of 2,800 feet of shoreline on Long Key. The design berm is 40 feet wide at elevation plus 6.0 feet mean low water then a 1 on 20 slope to zero mean low water then a 1 on 30 slope. This berm will provide necessary storm protection for the upland properties and increase areas for beach recreation.

The GDM97 provides authorization for the various island segments which can be constructed together or independently as separate projects. For FY11, the periodic nourishment within the project area is for Sand Key. Sand Key is a 14-mile-long crescent shape Gulf Coast Island bordered on the north by Clearwater Pass and to the south by Johns Pass. The Sand Key P&S and DDR will be reviewed in accordance with this review plan.

a. Project Description. This project is a renourishment of the Sand Key segment of the Pinellas County Beach Erosion Control Project. The project begins at Clearwater beach and extends south to North Redington Beach, Excluding Bellaire Shores. The constructed beach berm will have an elevation of 4.1-feet (North American Vertical Datum of 1988 (NAVD88)). The contract for this work is broken up into base and options. The base work is the Clearwater Beach (R-56 to R-66) segment which has a berm width of 185-feet wide from the Construction Baseline (CBL). Options A-C respectively are Indian Rocks Beach (R-71A to R-82), Indian Shores Beach (R-82 to R-101), and North Redington Beach (R-101 to R-107) and have varying berm widths from 40 feet to 125 feet. The beach slope will be same for the base and each option 1 foot vertical on 20 feet horizontal (1V:20H).

The beach fill material will come from an offshore borrow area, located approximately 14 nautical miles west of the project area. Additionally, project work also includes rock separation, beach tilling, vibration monitoring and environmental monitoring. Access is limited to the beach site.

Offshore access for pipeline shall be achieved through designated corridors to avoid hardbottom areas. Upland access will be provided at street ends and parking areas, but ramping over the sea wall may be necessary. A staging area will also be provided along the north end of Sand Key with access to Clearwater Pass and, if available, a vacant lot at the south end of the project.

b. Project Background. The establishment of the Sand Key shoreline was broken into four phases between 1988 and 1998. Before the initial phase of restoration was initiated, a nearshore breakwater was constructed in1986 at Redington Shores (R101).

In 1988, Phase I nourished 1.5 miles of shoreline with approximately 525,000 cubic yards at North Redington Beach and Redington Shores beaches. In 1990, Phase II provided 1.3 million

cubic yards of material along approximately 3 miles of the Indian Rocks Beach shoreline, and in 1992, Phase III nourished 2.9 miles of Indian Shores with the placement of 850,000 cubic yards of beach sand. Phase I project attained material from the Johns Pass ebb shoal and for Phase II and III at the Egmont Channel Shoal. Phase IV had two phases which the restoration of Bellaire Beach and the southern 0.8 miles of Clearwater Beach (R56-R66) on Sand Key was completed in the fall of 1998, and in the spring of 1999, nourishment between R71-R107 of Sand Key was completed using sand from the Egmont Channel Shoal.

Lastly, in response to the 2004 hurricane season, renourishment of the entire Sand Key segment (R56 to R66 and R71 to R107), known as 2nd Renourishment of the Sand Key Segment of Pinellas County Beach Erosion Control Project was accelerated with construction completed in August of 2006. Please note, the Town of Bellaire Shores (R66-R71) does not participate in this project.

Almost all of the material used for the establishment of the 40' berm and subsequent renourishments has been used material from the Egmont Channel Shoal located approximately 22 miles south of Sand Key. The only exception was the Phase 1 nourishment of North Redington Beach which attained material from Johns Pass.

3. DISTRICT QUALITY CONTROL

District Quality Control and Quality Assurance activities for implementation documents (DDRs and P&S) are stipulated in ER 1110-1-12, Engineering & Design Quality Management. The subject project DDR and P&S will prepared by the Jacksonville District using the SAJ procedures and will undergo DQC. DQC Certification will be verified by the Agency Technical Review Team.

4. AGENCY TECHNICAL REVIEW

a. Scope. Agency Technical Review (ATR) is undertaken to "ensure the quality and credibility of the government's scientific information" in accordance with EC 1165-2-209 and ER 1110-1-12. An ATR will be performed on the P&S and DDR intermediate and pre-final submittals.

ATR will be conducted by individuals and organizations that are external to the Jacksonville District. The ATR Team Leader is a Corps of Engineers employee outside the South Atlantic Division. The required disciplines and experience are described below.

ATR comments are documented in the DrChecks[sm] model review documentation database. DrChecks[sm] is a module in the ProjNet[sm] suite of tools developed and operated at ERDC-CERL (www.projnet.org).

At the conclusion of each ATR effort, the ATR team will prepare a Review Report summarizing the review. Review Reports will be considered an integral part of the ATR documentation and shall:

- Identify the document(s) reviewed and the purpose of the review;
- Disclose the names of the reviewers, their organization affiliations, and include a short paragraph on both the credentials and relevant expertise of each reviewer;
- Include the charge to the reviewer;
- Describe the nature of their review and their findings and conclusions;
- Identify and summarize each unresolved issues (if any); and

- Include a verbatim copy of each reviewers comments (either with or without specific attributions), or represent the views of the group as a whole, including any disparate and dissenting views.

b. ATR Disciplines. As stipulated ER 1110-1-12, ATR members will be sought from the following sources: regional technical specialists (RTS); appointed subject matter experts (SME) from other districts; senior level experts from other districts; Center of Expertise staff; experts from other USACE commands; contractors; academic or other technical experts; or a combination of the above. The ATR Team will be comprised of the following disciplines; knowledge, skills and abilities; and experience levels.

Geotechnical Engineering and Engineering Geology. The team member should be a registered professional. Experience needs to encompass geologic and geotechnical analyses that are used to support the development of Plans and Specifications for navigation and shore protection projects.

Civil Engineering/Dredging Operations. The team member should be a registered professional engineer with dredging operations and/or civil/site work project experience that includes dredging and disposal operations, embankments, channels, revetments and shore protection project features.

NEPA Compliance. The team member should have experience in NEPA compliance activities and preparation of Environmental Assessments and Environmental Impact Statements for navigation or shore protection projects.

ATR Team Leader. The ATR Team Leader should have experience with Navigation and/or Shore Protection Projects and have performed ATR Team Leader duties. ATR Team Leader may be a co-duty to one of the review disciplines.

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 (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 associated with decision documents. No decision documents are addressed/covered by this Review Plan. 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 beach erosion control project does not trigger WRDA 2007 Section 2035 factors for Safety Assurance Review (termed Type II IEPR in EC 1165-2-209) 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 is necessary as stated under Section 2035 along with this review plans applicability statement 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.

In addition, the prevention of loss of life within the project area from hurricanes and severe storms is via public education about the risks, warning of potential threats and evacuations before hurricane landfall.

(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 beach fill design is in accordance with the USACE Coastal Engineering Manual. The manual does not employee 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 Beach Erosion Control Project does not use any engineering models that have not been approved for use by USACE.

7. BUDGET AND SCHEDULE

a. Project Milestones.

Completion of Pre-Final Submittal – 10 MAY 11

District Quality Control – 05 APR 11 to 06 MAY 11

BCOE Review – 10 MAY 11 to 31 MAY 11

ATR Review – 18 MAY 11 to 20 MAY 11

Advertisement – 30 JUN 11

b. ATR Estimated Cost. The ATR will be conducted 22Jan11-12Feb11. It is envisioned that each reviewer will be afforded 24 hours review plus 4 hours for coordination. The estimated cost range is $10-15,000.

8. POINTS OF CONTACT

Per guidance, the names of the following individual will not be posted on the Internet with the Review Plan. Their titles and responsibilities are listed below.

Jacksonville District POCs:

Review Plan, ATR and QM Process,

Project Information (PM) & (ETL),

South Atlantic Division,