



**DEPARTMENT OF THE ARMY**  
SOUTH ATLANTIC DIVISION, CORPS OF ENGINEERS  
ROOM 9M15, 60 FORSYTH ST., S.W.  
ATLANTA, GEORGIA 30303-8801

REPLY TO  
ATTENTION OF

CESAD-PDS-P

17 March 2008

MEMORANDUM FOR COMMANDER, Jacksonville District, ATTN: CESAJ-PD

SUBJECT: Approval of the Peer Review Plan (PRP) for the Brevard County, Florida Shore Protection Project Mid-Reach GRR with SEIS

1. References:

- a. Memorandum, CESAJ-PD, 13 Dec 2007, subject: Approval of the Peer Review Plan (PRP) for the Brevard County, Florida Shore Protection Project Mid-Reach GRR with SEIS
- b. EC 1105-2-408 Peer Review of Decision Documents, 31 May 2005.
- c. CECW-CP Memorandum, 30 March 2007, subject: Peer Review Process.
- d. Supplemental information for the "Peer Review Process" Memo, dated March 2007.

2. In accordance with EC 1105-2-408, "Peer Review of Decision Documents," the PRP for the Brevard County, Florida Shore Protection Project Mid-Reach GRR with SEIS has been coordinated and developed with the CSDR-PCX. The plan as prepared has been reviewed by this office and is approved.

3. We concur with the conclusion that external peer review (EPR) of this project is required due to the project cost exceeding an estimated \$110 million. The Brevard County General Re-evaluation Report will present the results of a coastal storm damage reduction study for the 7.6 mile Mid-Reach segment of Brevard County, Florida. In the Feasibility Report with Final Environmental Impact Statement for Brevard County (1996), the Mid-Reach was removed from the recommended plan due to environmental concerns. This general re-evaluation will determine if all or a portion of the Mid-Reach is acceptable for addition into the Brevard County Shore Protection Project. The Mid-Reach Segment is evaluated as a stand-alone project in this report, although some reduced costs may be realized by combining construction activities with the other portions of the Brevard County Shore Protection Project. This report will determine if the project is technically sound, environmentally acceptable, and economically justified. The PRP complies with all applicable policy and provides for adequate independent technical review of the plan formulation, engineering, and environmental analyses, and other aspects of the plan development. Non-substantive changes to this PRP do not require further approval.

6/9/2008

CESAD-PDS-P

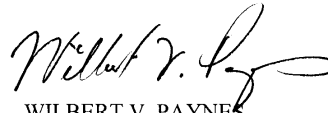
17 March 2008

SUBJECT: Approval of the Peer Review Plan (PRP) for the Brevard County, Florida Shore Protection Project Mid-Reach GRR with SEIS

4. The district should take steps to post the PRP to its web site and provide a link to the CSDR-PCX for their use. Before posting to the web site the names of Corps/Army employees should be removed in accordance with reference 1.d. above.

5. The SAD point of contact is Mr. Terry Stratton, CESAD-PDS-P, 404-562-5228.

FOR THE COMMANDER:



WILBERT V. PAYNES  
Chief, Planning and Policy  
Community of Practice

**PEER REVIEW PLAN  
FOR  
BREVARD COUNTY, FLORIDA  
SHORE PROTECTION PROJECT  
MID-REACH  
GENERAL RE-EVALUATION REPORT WITH  
SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT  
OCTOBER 2007**

For questions or comments regarding this Peer Review Plan, please forward your comments to:

Title	Telephone	Email
Project Manager	904-232- 2909	<a href="#">Click here to email the project manager</a>

THE INFORMATION CONTAINED IN THIS PEER 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.

**PEER REVIEW PLAN  
FOR  
BREVARD COUNTY, FLORIDA  
SHORE PROTECTION PROJECT  
MID-REACH  
GENERAL RE-EVALUATION REPORT WITH  
SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT**

**1. PURPOSE**

This Peer Review Plan (PRP) provides a technical peer review mechanism ensuring that quality products are developed during the course of the study by the Jacksonville District (SAJ). All processes, quality control, quality assurance, and policy review will be done to complement each other producing a review process that identifies and resolves technical and policy issues during the course of the study and not during the final study stages.

The PRP is intended to describe the processes that will be implemented to independently (of the Project Team) evaluate the technical sufficiency of the planning study. The PRP is a collaborative product of the Project Delivery Team (PDT) and the National Planning Center of Expertise for Coastal Storm Damage Reduction (PCX-CSDR). The PCX-CSDR shall manage the peer review processes, which for this study includes an Independent Technical Review (ITR) and an External Peer Review (EPR).

ITR is a critical examination by a qualified person or team, predominantly within the Corps of Engineers (Corps), which was not involved in the day-to-day technical work that supports a decision document. ITR is intended to confirm that such work was done in accordance with clearly established professional principles, practices, codes and criteria informed by Engineering Regulation (ER) 1105-2-100.

EPR is in addition to ITR, and is added to the Corps existing review process in special cases where the risk and magnitude of the proposed project are such that a critical examination by a qualified person or team outside of the Corps and not involved in the day-to-day production of a technical product is necessary. EPR will similarly be added in cases where information is based on novel methods, presents complex challenges for interpretation, contains precedent-setting methods or modes, presents conclusions that are likely to change prevailing practices, or is likely to affect policy decisions that have a significant impact. In the absence of a technical requirement high project cost, by itself, may necessitate EPR.

**2. REFERENCES**

ER 1105-2-100, "Planning Guidance Notebook

EC 1105-2-408, "Peer Review of Decision Documents", dated May 31, 2005  
CECW-CP Memorandum, "Peer Review Process", dated March 30, 2007  
Water Resources Council's Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies, Chapter II - (National Economic Development NED) Benefit Evaluation Procedures (March 10, 1983).

### **3. PROJECT/STUDY BACKGROUND**

A general re-evaluation report for Brevard County, Florida was authorized by the Water Resources Development Act of 2000, which stated SEC. 418 BREVARD COUNTY, FLORIDA "The Secretary shall prepare a general reevaluation report on the project for shoreline protection, Brevard County, Florida, authorized by section 101(b)(7) of the Water Resources Development Act of 1996 (110 Stat. 3667), to determine, if the project were modified to direct the Secretary to incorporate in the project any or all of the 7.1 mile reach of the project that was deleted from the south reach of the project, as described in paragraph (5) of the Report of the Chief of Engineers, dated December 23, 1996, whether the project as modified would be technically sound, environmentally acceptable, and economically justified."

The Brevard County General Re-evaluation Report will present the results of a coastal storm damage reduction study for the 7.6 mile Mid-Reach segment of Brevard County, Florida. In the Feasibility Report with Final Environmental Impact Statement for Brevard County (1996), the Mid-Reach was removed from the recommended plan due to environmental concerns. This general re-evaluation will determine if all or a portion of the Mid-Reach is acceptable for addition into the Brevard County Shore Protection Project. The Mid-Reach Segment is evaluated as a stand-alone project in this report, although some reduced costs may be realized by combining construction activities with the other portions of the Brevard County Shore Protection Project. This report will determine if the project is technically sound, environmentally acceptable, and economically justified.

The Brevard County (Mid-Reach) Shore Protection Project is located on the east coast of Florida just south of Cape Canaveral. The Mid-Reach consists of approximately 7.6 miles of the Brevard County shoreline, from the south end of Patrick Air Force Base to just north of the city of Indialantic (from Department of Environmental Protection (DEP) monument R75.4 to R118.3). This length is recommended rather than the 7.1 miles in the study authorization to complete the entire length between Patrick Air Force Base and the constructed Brevard County South Reach Shore Protection Project. There are three municipalities (Satellite Beach, Indian Harbour Beach, and Melbourne) and portions of unincorporated Brevard County located within the project area. A location map is shown in Figure 1.

#### **Planning Models**

Model certification was an issue brought forward in the planning study. Engineering models used in the study (SBEACH) are exempted from model certification under the guidance in the Engineering and Construction Bulletin 2007-6 dated 10 April 2007.

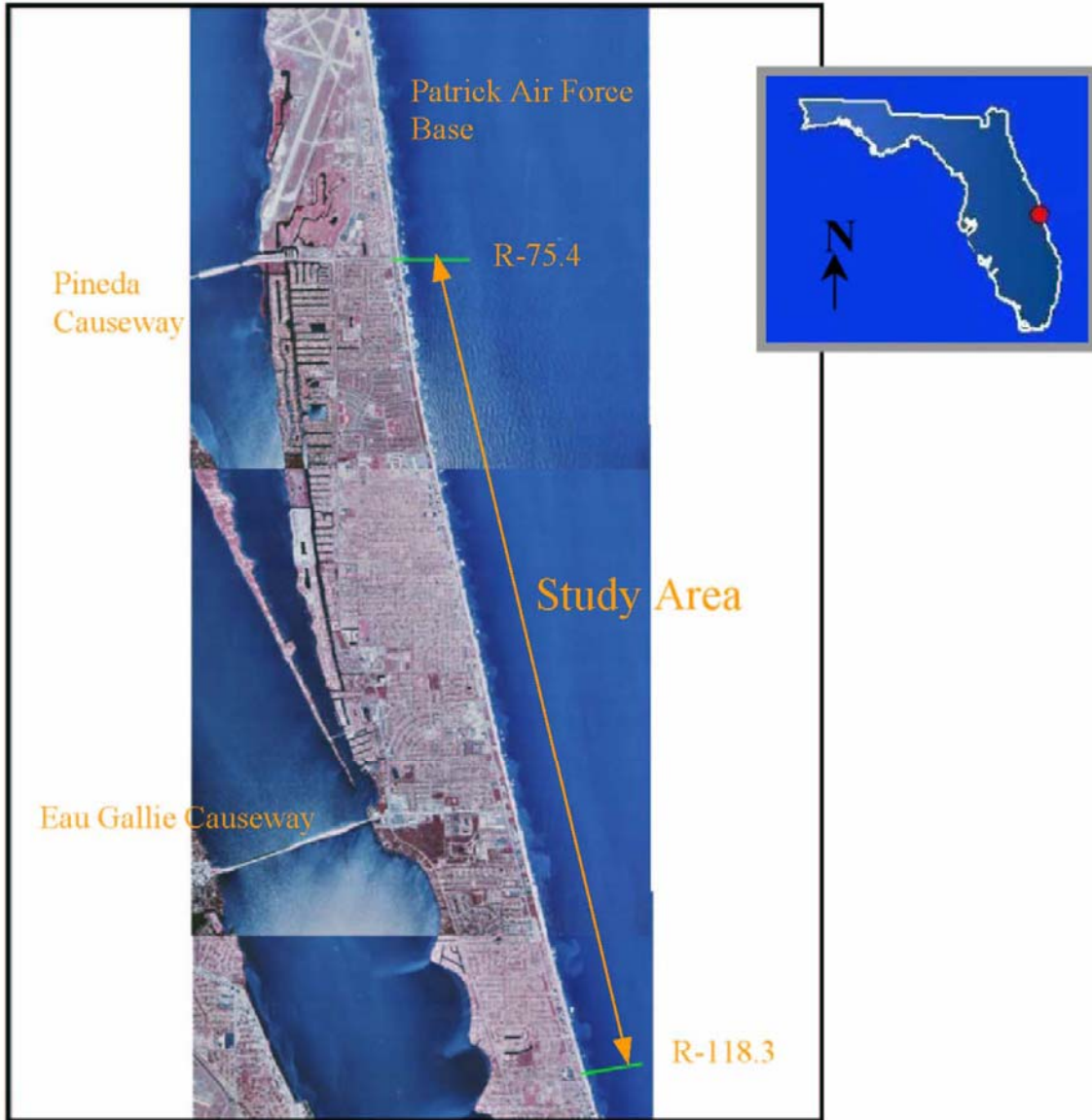
Economics and environmental models employed in the planning process either have been or are in the process of being reviewed by the PCX-CSDR.

The economics model (the Jacksonville District Storm Damage Model or SDM) falls under the criteria of EC 1105-2-407, Planning Models Improvement Program: Model Certification. The Jacksonville District SDM was not certified at the time of the initiation of this study. As no other models were certified either, Jacksonville District initiated review of the model through North Atlantic Division as the Planning Center of Expertise for Coastal Storm Damage Reduction. The reviewer tasked with this model, from New England District, concluded that the Jacksonville District SDM met the requirements for model certification.

Two environmental analysis models were employed and are described as follows:

Habitat Equivalency Analysis (HEA), a product of the National Oceanographic and Atmospheric Administration (NOAA), is a method to determine the necessary restoration to compensate for interim loss of services.

Uniform Mitigation Assessment Method (UMAM), per Florida state statute, must be used to determine mitigation acreage. We are attempting to use it to determine hard bottom mitigation acreage for this project.



**Figure 1.** Brevard County Mid-Reach Study Area

Coastal erosion is a persistent problem throughout Brevard County, threatening commercial and residential structures. Erosion along the Mid-Reach segment continues to occur, decreasing the amount of beach and dune protecting the structures. The beach is impacted additionally by periodic storms that have accelerated beach erosion and increased the probability for damage to structures. The goal of the project is to reduce potential storm damages for coastal structures along the Mid-Reach. Coincident with expanding the beach berm and stabilizing the dune or bluff feature, sea turtle nesting in the Mid-Reach may be enhanced. Opportunities also are present to preserve the natural resources that are available in the study area, through preserving the nearshore rock resources and associated recreational opportunities.

Total initial project cost is expected to be about \$25M. Factoring in the projected cost of periodic renourishment increases total project cost to the \$120M range.

### **The Project Delivery Team**

Project Manager	Civil Engineer	Jacksonville District
Planning Technical Lead	Civil Engineer	Jacksonville District
Engineering Technical Lead	Civil Engineer	Jacksonville District
Geotechnical Analysis	Geologist	Jacksonville District
Cost Engineering	Cost Engineer	Jacksonville District
Hydrodynamic Modeling	Hydraulic Engineer	Jacksonville District
Environmental Analysis	Biologist	Jacksonville District
	Real Estate	Jacksonville District
Real Estate Evaluation	Specialist	
Economic Analysis	Economist	Jacksonville District
Construction/Operations	Civil Engineer	Jacksonville District
Legal Evaluation	Attorney	Jacksonville District

### **4. INDEPENDENT TECHNICAL REVIEW PLAN**

ITR is performed at key points in the study process to ensure the proper application of appropriate regulations and professional procedures. ITRs are typically performed at two Corps vertical team review points interim to the Draft Report: the Feasibility Scoping Meeting (FSM) and Alternative Formulation Briefing (AFB). Subsequently the Draft report is subjected to ITR and the Final Report in the case of projects requiring an Environmental Impact Statement (EIS).

Skilled and experienced personnel who have not been associated with the development of the study products perform the ITR. ITR team members may be employees of U.S. Army Corps of Engineer Districts, other Federal agencies, state or local government agencies, universities, private contractors or other institutions. The key factor is extensive, expert knowledge in their field of expertise. DrChecks document review and comment software will be used to document the ITRs.

The relevant National Planning Center of Expertise, in this case for Coastal Storm Damage Reduction (PCX-CSDR), has ultimate responsibility for accomplishing ITR.



The PCX-CSDR is requested to form an ITR Team, and to conduct ITR of the Draft and Final Reports. The ITR team leader should be outside of the MSC.

Also, a Cost Estimating Directory of Expertise (Cost Dx) has been established, at the Corps Walla Walla District (NWW). The completed draft report cost estimate may require review by the Cost Dx. The PCX-CSDR is requested, herein, to coordinate cost estimation review with the Cost Dx. The working assumption is that the PCX-CSDR would secure Cost Dx approval of the proposed cost estimating reviewer, and that the Draft Report review would apply the proper Cost Dx-provided checklist. The completed checklist would be returned to the Cost Dx for approval.

Seven (7) technical disciplines determined to be appropriate for review of the Draft and Final Reports include: plan formulation, economics, environmental/NEPA compliance, coastal engineering, geotechnical, cost, and real estate. All should be well-versed in conduct of coastal storm damage reduction studies.

## **5. EXTERNAL PEER REVIEW PLAN**

In order to determine if external peer review is warranted for this particular project, an evaluation was conducted of the risk and magnitude of the proposed project, including consideration of whether or not study conclusions were based on novel methods, present complex challenges for interpretation, contain precedent-setting methods or modes, present conclusions that are likely to change prevailing practices, or are likely to affect policy decisions that have a significant impact, as called for in EC 1105-2-408, Section 4.b.

### **External Peer Review Requirement Determination**

The Jacksonville Districts opinion is that the external peer review (EPR) that has been accomplished during the course of addressing significant environmental issues, specifically related to minimizing impact to nearshore rock resources is sufficient to comply with the spirit and intent of our guidance in EC 1105-2-408. However, the MSC has instructed to plan for conducting EPR due to the large magnitude of the project (greater than \$45M). EPR will be conducted on the draft report. Detailed scope of the EPR will be determined in advance of the review. Preliminarily, the cost of EPR is anticipated to be approximately \$100K.

Evaluations of individual decision criteria are provided below, in support of the above-stated opinion.

#### Unusually high risk or magnitude indicated?

The proposed project does not appear to include risks that are greater than normally would be expected for a coastal storm damage reduction project. However, the total cost, projected to exceed \$45M, would be considered high magnitude

Study conclusions based upon novel methods?

Study methods employed were typical of other coastal storm damage reduction projects, and would not appear to warrant external peer review on this basis.

Study conclusions present complex challenges for interpretation?

Interpretation challenges, for this project, generally are typical of that for a coastal storm damage reduction project and are not expected to present complex challenges for interpretation. However, the desire to preserve nearshore rock environmental resources has presented interpretation, evaluation and consensus-building challenges. So much so that, in addition to the routine processes of public and agency review, external peer review during the plan formulation process was obtained from U.S. Fish and Wildlife Service, National Marine Fisheries Service, and the State of Florida Department of Environmental Protection. The result was a consensus of these agencies that the project could be constructed and maintained while preserving the nearshore rock resources.

Study conclusions contain precedent-setting methods or modes?

Well established analytical methods and modes were employed and are not considered precedent-setting.

Study conclusions likely to change prevailing practices?

Study conclusions are expected to be typical of a coastal storm damage reduction project and are not expected to change prevailing practices.

## **6. ADDITIONAL REVIEW CONSIDERATIONS**

### **Public and Agency Comment and Dissemination**

Public involvement is anticipated throughout the preparation of the Decision Document. Public information meetings are conducted to inform the general public, other federal and state agencies and interested stakeholders of the status of the project and alternatives being considered. Comments will be accepted by email or regular mail.

At a minimum, public meetings have/will be conducted as part of the National Environment Policy Act (NEPA) compliance process, including: Public scoping meetings and the public review period of the Draft Environmental Impact Statement. As well, the public will be able to comment on the Final Environmental Impact Statement and Record of Decision. Results of public reviews are included in all products that are subjected to ITR.

## 7. CONSOLIDATED SCHEDULE

- ITR of FSM Package (completed November 2005)
- ITR of AFB Package (completed August 2007)
- District Review of Draft Report, July 2008
- ITR of Draft Report, August 2008
- EPR of the Draft Report, January 2009
- Public and Agency review of Draft Report, January 2009
- Final Report, May 2009

## 8. POINTS OF CONTACT

Due to confidentiality law requirements with posting documents on websites for public review, only the Project Manager is listed as the point of contact for any questions concerning this Peer Review Plan and qualifications of members of the PDT team:

Title	Telephone	Email
Project Manager	904-232-3915	<a href="#">Click here to email the project manager</a>