

**PEER REVIEW PLAN
FOR
FLAGLER COUNTY, FLORIDA
HURRICANE AND STORM DAMAGE
REDUCTION STUDY
FEBRUARY 2008
Updated AUGUST 2010**

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

Title	Telephone	Email
Daniel Haubner Project Manager	904-232- 1052	Daniel.R.Haubner@usace.army.mil

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The approved review plan was revised in August 2010 to update project manager, references, nomenclature and consolidated schedule, as well as to make minor revisions to the project background. Changes are non-substantive, in that they do not alter quality control scope or review commitments.

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 Agency Technical Review (ATR) and an Independent External Peer Review (IEPR).

ATR 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. ATR 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.

IEPR is in addition to ATR, 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. IEPR 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 IEPR.

2. REFERENCES

ER 1105-2-100, "Planning Guidance Notebook
EC1165-2-209, "Civil Works Review Policy", dated 31 January 2010
EC 1105-2-410, "Review of Decision Documents", dated August 22, 2008

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

The purpose of the study is to assess the needs for Coastal Storm Damage Reduction and opportunities for environmental restoration and protection along the coast of Flagler County, Florida. The study area is the entire coast of Flagler County (Figure 1), which is subject to storm damage and shoreline erosion. The study area includes about 5.7 miles of critically eroding shoreline, including approximately 0.6 miles at the northern end of the county at Marineland, 0.4 miles at Painter's Hill, a 0.9 mile segment at Beverly Beach, which is located just north of Flagler Beach, and 3.8 miles of critical erosion in Flagler Beach.

The most immediate and critical needs of the local communities are to address beach and dune erosion and include environmental protection opportunities. This study will define Federal interest and determine if a National Economic Development Plan can be formulated. This will be accomplished by participating in locally supported, cost-shared feasibility studies addressing issues along the coast of Flagler County.

House Resolution 2676 adopted May 22, 2002, directs the Secretary of the Army to review the feasibility of providing shoreline erosion protection, hurricane and storm damage reduction, and related purposes to the shores of Flagler County, Florida. In response to this authority, the reconnaissance phase of study was initiated upon receipt of Federal funds in 2003. The 905(b) analysis documents initial investigations (conducted using existing data) to identify at least one planning alternative meeting Federal guidelines and regulations as a prerequisite prior to proceeding into feasibility phase studies.

Total initial project cost, from the 2004 reconnaissance study, was estimated at \$31.5M. Factoring in the projected cost of periodic renourishment would significantly increase the project total cost.

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 Specialist	Jacksonville District
Real Estate Evaluation		
Economic Analysis	Economist	Jacksonville District
Construction/Operations	Civil Engineer	Jacksonville District
Legal Evaluation	Attorney	Jacksonville District

Planning Models

The economics model that will be employed is Beach-fx, a Corps-developed national model that does not require certification specific to this individual project.

Engineering models used in the study, SBEACH and GENESIS, are exempted from model certification under the guidance in the Engineering and Construction Bulletin 2007-6 dated 10 April 2007.

4. AGENCY TECHNICAL REVIEW PLAN

ATR may be performed at four key points in the study process to ensure the proper application of appropriate regulations and professional procedures. ATRs 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 and final reports reviewed.

Skilled and experienced personnel who have not been associated with the development of the study products perform the ATR. ATR 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 ATRs.

The relevant National Planning Center of Expertise, in this case for Coastal Storm Damage Reduction (PCX-CSDR), has ultimate responsibility for accomplishing ATR. The PCX-CSDR is requested to form an ATR Team, and to conduct ATR of the Draft and Final Reports. The ATR 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.

Preliminary cost estimates for the 4 ITRs are itemized as follows:

- FSM Briefing Materials - \$20K
- AFB Materials - \$30K
- Draft Report - \$40K-ITR plus \$10K for EPR
- Final Report - \$30K- ITR
- PCX management - \$20 (\$5K per review)
- PCX CWRB preparation and participation - \$5K

5. INDEPENDENT EXTERNAL PEER REVIEW PLAN

In order to determine if independent 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.

Independent External Peer Review Requirement Determination

The Jacksonville District opinion is that this project would be considered large, likely exceeding \$45M in total cost. Magnitude of the project triggers the requirement for independent external peer review. IEPR will be conducted on the draft report. Detailed scope of the IEPR will be determined in advance of the review. Preliminarily, the cost of IEPR 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 to be employed are typical of other coastal storm damage reduction projects, and would not appear to warrant independent 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.

Study conclusions contain precedent-setting methods or modes?

Well established analytical methods and modes will be 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.

The PCX-CSDR opinion is that due to the potential for the total project cost including periodic nourishment to exceed \$45 million, that a full IEPR should be expected to be performed.

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 will be conducted as part of the National Environment Policy Act (NEPA) compliance process. Results of public reviews are included in all products that are subjected to ATR.

7. CONSOLIDATED SCHEDULE

- ATR of FSM Package (July-10)
- ATR of AFB Package (May-12)
- ATR and IEPR of Draft Report (July-13)
- ATR of Final Report (September-14)

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
Daniel Haubner Project Manager	904-232-1052	Daniel.R.Haubner@usace.army.mil

Figure 1 – Flagler County Study Area Map

