



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

4 November 2009

MEMORANDUM FOR Commander, Jacksonville District (CESAJ-PD)

SUBJECT: Approval of the Review Plan (RP) for the Fort Pierce, St Lucie County, Florida Shore Protection Project General Reevaluation Report with Environmental Assessment (Fort Pierce GRR)

1. References:

- a. Memorandum, CESAJ-PD, 27 Aug 2009, subject: Approval of the Review Plan (RP) for the Fort Pierce, St Lucie Co., FL Shore Protection Project General Reevaluation Report with Environmental Assessment (Fort Pierce GRR)
- b. EC 1105-2-410 Review of Decision Documents, 22 August 2008.
- c. CECW-CP Memorandum, 30 March 2007, subject: Peer Review Process.
- d. Supplemental information for the "Peer Review Process" Memo, dated March 2007.
- e. EC 1165-2-209, Water Resources Policies and Authorities, Civil Works Review Policy, 1 July 2009 (Draft).

2. In accordance with EC 1105-2-410, "Review of Decision Documents," the Review Plan (RP) for the Fort Pierce, St Lucie Co., FL Shore Protection Project General Reevaluation Report with Environmental Assessment has been coordinated with and concurred on by National Planning Center of Expertise for Coastal Storm Damage Reduction (CEPCX-CSDR). The Ft Pierce Review Plan dated August 2009 (enclosure) has been reviewed by this office and is approved.

3. We concur with the conclusion that independent external peer review (IEPR) of this project is required due to estimated project cost in excess of \$45,000,000. Other requirements that could lead to a report requiring IEPR are: (1) novel subject matter likely be produced by the report, (2) the report or project deals with controversial subject matter to include but not limited to environmental impacts associated with improvements in the project area, (3) subject matter in the report or on the project would be considered precedent-setting, (4) interagency interest is significant, and (5) there are significant environmental or social effects to the nation. None of these five scenarios are expected during preparation of the General Reevaluation Report. The PRP complies with all applicable policy and provides for adequate agency technical review

CESAD-PDS-P:

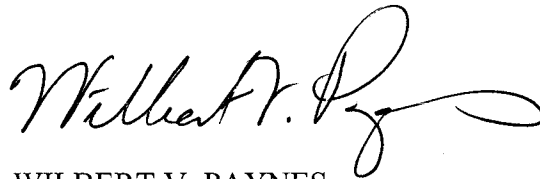
SUBJECT: Approval of the Review Plan (RP) for the Fort Pierce, St Lucie Co., FL Shore Protection Project General Reevaluation Report with Environmental Assessment (Fort Pierce GRR)

(ATR) 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.

4. The district should take steps to post the PRP and a copy of this approval memorandum to the SAJ District public internet website and provide a link to the CEPCX-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

CF:
CEPCX-CSDR



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

REPLY TO
ATTENTION OF

CESAJ-PD

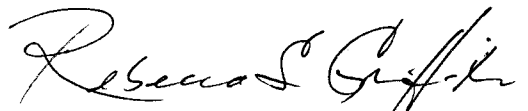
AUG 27 2009

MEMORANDUM FOR CHIEF, PLANNING DIVISION, SOUTH ATLANTIC DIVISION
(CESAD)

SUBJECT: Approval of the Review Plan (RP) for the Fort Pierce, St. Lucie Co., FL Shore Protection Project General Reevaluation Report with Environmental Assessment (Fort Pierce GRR)

1. Reference: EC 1105-2-410, Review of Decision documents, 22 August 2008.
2. Enclosures: The National Planning Center of Expertise (PCX) approval memorandum is provided as enclosure 1. The Review Plan (RP) is provided as enclosure 2.
3. I hereby request approval of the enclosed subject RP and concurrence with the conclusion that external peer review of this project is necessary because it triggers criteria provided in the above reference. The RP has been coordinated with and concurred by the National Planning Center of Expertise for Coastal Storm Damage Reduction (PCX-CSDR). The RP complies with all applicable policies and provides an adequate agency technical review of the plan formulation, engineering, environmental analyses, other aspects of the plan development and for independent external peer review. It is our understanding that non-substantive changes to this RP, should they become necessary, are authorized by CESAD.
4. The point of contact is James M. Baker, CESAJ Review Coordinator, Planning Division, CESAJ-PD-PW, (904) 232-2698.

2 Encls


REBECCA S. GRIFFITH, Ph.D, PMP
Chief, Planning Division



DEPARTMENT OF THE ARMY
NORTH ATLANTIC DIVISION, CORPS OF ENGINEERS
FORT HAMILTON MILITARY COMMUNITY
BROOKLYN, NY 11262-8700

REPLY TO
ATTENTION OF

CEPCX-CSDR

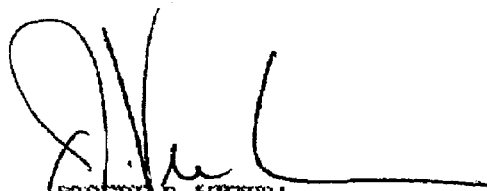
20 Jul 2009

MEMORANDUM FOR: Chief, CBSAJ-PD-PW, Attention: Mr. Jim Baker

SUBJECT: Fort Pierce St. Lucie County, FLA General Reevaluation Report Study Review Plan

1. The National Planning Center of Expertise for Coastal Storm Damage Reduction (PCX-CSDR) has reviewed the Review Plan (RP) for the subject study and concurs that the RP complies with current peer review policy requirements contained in EC 1105-2-410, entitled "Review of Decision Documents", dated 22 August 2008.
2. The review was performed by Ms. Barbara Blumeris, CENAB-EP-PS.
3. Note that approval of the use of the Storm Damage Model (SDM) needs vertical team coordination.
4. PCX-CSDR has no objection to approval of the RP by the Commander, South Atlantic Division. Upon approval of the RP, please provide a copy of the approved RP, a copy of the SAD Commander Approval memorandum and the link to where the RP is posted on the SAJ or SAD website to Ms. Blumeris.
5. Thank you for the opportunity to assist in the preparation of the RP. PCX-CSDR is prepared to continue coordinating with the PDT. For further information, please contact me at (917) 613-3873 or Mr. Larry Cocchieri at 718-765-7871.

Encl



JOSEPH R. VIETRI
Director, National Planning Center of
Expertise for Coastal Storm Damage
Reduction

REVIEW PLAN
FORT PIERCE
ST LUCIE COUNTY, FLORIDA
SHORE PROTECTION PROJECT
GENERAL REEVALUATION REPORT WITH ENVIRONMENTAL ASSESSMENT
(Fort Pierce GRR)
August 2009

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

Title	Telephone	Email
PCX-CSDR	917-790-8608	<u>Click here to email the PCX Point of Contact</u>
Project Manager	904-232-1231	<u>Click here to email the Project Manager</u>

U.S. ARMY CORPS OF ENGINEERS JACKSONVILLE DISTRICT

THE INFORMATION CONTAINED IN THIS REVIEW PLAN IS DISTRIBUTED SOLELY FOR THE PURPOSE OF PREDISSEMINATION 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.

REVIEW PLAN
FORT PIERCE
ST LUCIE COUNTY, FLORIDA
SHORE PROTECTION PROJECT
GENERAL REEVALUATION REPORT WITH ENVIRONMENTAL ASSESSMENT
(Fort Pierce GRR)
August 2009

Executive Summary

This review plan describes the general rationale and procedures for conducting Agency Technical Reviews (ATR), Independent External Peer Review (IEPR) and planning model certification, in support of the Fort Pierce GRR.

The GRR will present the results of updated planning, engineering, and economic studies of the project area and its shoreline erosion problems. Alternative storm damage reduction management measures were evaluated, and a new 50 year period of Federal participation proposed.

LEVEL OF REVIEW DETERMINATION. The determination of this review plan is that Independent External Peer Review (IEPR) is required, in addition to the standard model certification, and Agency Technical Review (ATR) requirements.

Independent Technical Review of the sponsor completed draft report has been completed by an independent Jacksonville District Team. The PCX-CSDR is requested to establish an ATR team from outside the District with ATR lead from outside the Division and provide Agency Technical Review of the revised draft report. The draft report cost estimate is also to be reviewed by the Cost Dx.

IEPR and public review period for the report and Environmental Assessment is currently scheduled for 01 June 2010. The relevant National Planning Center of Expertise, in this case for Coastal Storm Damage Reduction (PCX-CSDR), has ultimate responsibility for accomplishing reviews.

Planning model certification/approval

The study will employ the certified Beach-fx model. No further certification/approval process will be required.

Consolidated Schedule.

- Draft GRR SAJ Inhouse Independent Technical Review completed January 2008
- ATR of revised draft report, December 2010
- Cost Dx review of draft report, December 2010
- FRC with USACE, February 2011

- IEPR of the Draft Report, June 2011
- Public and Agency review of Draft Report, June 2011

REVIEW PLAN
FORT PIERCE
ST LUCIE COUNTY, FLORIDA
SHORE PROTECTION PROJECT
GENERAL REEVALUATION REPORT WITH ENVIRONMENTAL ASSESSMENT
(Fort Pierce GRR)
June 2009

TABLE OF CONTENTS

	Page
1.0 Review Plan Purpose and Requirements	1
2.0 Fort Pierce GRR Scope	2
3.0 Levels of Review Determination	6
4.0 Levels of Review – Scope	7
5.0 Consolidated Schedule	9
6.0 Summary	9

REVIEW PLAN
FORT PIERCE
ST LUCIE COUNTY, FLORIDA
SHORE PROTECTION PROJECT
GENERAL REEVALUATION REPORT WITH ENVIRONMENTAL ASSESSMENT
(Fort Pierce GRR)
June 2009

1.0 Review Plan Purpose and Requirements

Engineer Circular (EC) 1105-2-410 (hereafter: EC 410), Review of Decision Documents (22 August 2008) (1) establishes procedures to ensure the quality and credibility of Corps decision documents by adjusting and supplementing the review process and (2) requires that documents have a peer review plan. The Circular applies to all feasibility studies and reports and any other reports that lead to decision documents that require authorization by Congress.

EC 410 outlines a comprehensive review process that is customized for the level of complexity and relative importance of the proposed actions. It also provides guidance on Corps of Engineers Planning Centers of Expertise (PCX) involvement in the approaches. This review plan addresses review of the decision document as it pertains to both approaches and coordination with the appropriate Center. As this is a reevaluation study for a coastal storm damage reduction project, the appropriate Center is the Planning Center of Expertise for Coastal Storm Damage Reduction (PCX-CSDR), located within the Corps of Engineers North Atlantic Division NAD.

This review plan is an extension of the Project Management Plan, for the subject project.

1.1 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, including contracted work that is being reviewed (EC 410). DQC is required.

1.2 Planning model certification/approval

Certification or approval of planning models employed to evaluate, compare or select alternatives is required by EC 1105-2-407.

1.3 Agency Technical Review (ATR)

The relevant National Planning Center of Expertise has ultimate responsibility for accomplishing ATR. ATR is a critical examination by a qualified person or team that was not involved in the day-to-day technical work that supports the decision document. ATR is

intended to confirm that such work was done in accordance with clearly established professional principles, practices, codes, and criteria. In addition to technical review, documents should also be reviewed for their compliance with laws and policy. EC 410 also requires that DrChecks (<https://www.projnet.org/projnet/>) be used to document ATR comments, responses, and associated resolution accomplished. The PCX-CSDR, has ultimate responsibility for accomplishing ATR. Legal review/certification is a related but separate review not scoped in this review plan.

1.4 Independent External Peer Review (IEPR)

EC 410 emphasizes independent external peer review within the existing Corps review process. This approach does not replace the standard ATR process. The IEPR approach applies in special cases where the magnitude and risk of the project are such that a critical examination by a qualified person outside the Corps is necessary. IEPR will be used in cases where there are public safety concerns, a high level of complexity, novel or precedent-setting approaches; where the project is controversial, has significant interagency interest, has a total project cost greater than \$45 million, or has significant economic, environmental and social effects to the nation, or where requested by the Governor of an affected state. The degree of independence required for technical review increases as the project magnitude and project risk increase. The PCX-CSDR, has ultimate responsibility for accomplishing IEPR. The Circular also requires that DrChecks be used to document IEPR comments, responses, and associated resolution accomplished.

1.5 Policy Compliance and Legal Review

Legal review is separate from ATR, but related. Policy compliance and legal review will be performed by Office of Council (OC) project district staff and the Vertical Team at appropriate milestones.

2.0 Fort Pierce GRR Scope

The GRR will present the results of updated planning, engineering, and economic studies of the project area and its shoreline erosion problems. Alternative storm damage reduction management measures were evaluated, and a new 50 year period of Federal participation proposed. This is a single purpose, Coastal Storm Damage Reduction Project.

2.1 Authority

The River and Harbor Act of 1965 (79 Stat. 1089, 1092) originally authorized the Fort Pierce Shore Protection Project (SPP). The authorization provided for restoration of 1.3 miles of shoreline south of the Fort Pierce Inlet, and for periodic nourishment as needed for a period of 10 years following initial construction. Section 156 of the Water Resources Development Act (WRDA) of 1976 (PL 94-587), as amended by Section 934 of the 1986 WRDA (PL 99-662), provided the authority to extend the project period to 50 years. The U.S. Army Corps of Engineers (USACE) published the General & Detail Design Memorandum (G&DDM) for the project in 1978. The Fort Pierce SPP provides for a 50-ft extension berm that extends 1.3

miles from the south Fort Pierce Inlet jetty (R-34) to the southern terminus at Surfside Park (R-41). Section 215 of the WRDA of 1999 (Public Law 106-53) authorized an additional study to determine the Federal interest in controlling erosion along the northern 2,200 ft (R-34 to R-36) of the project beach which is susceptible to severe erosion.

2.2 Need for Project Reevaluation

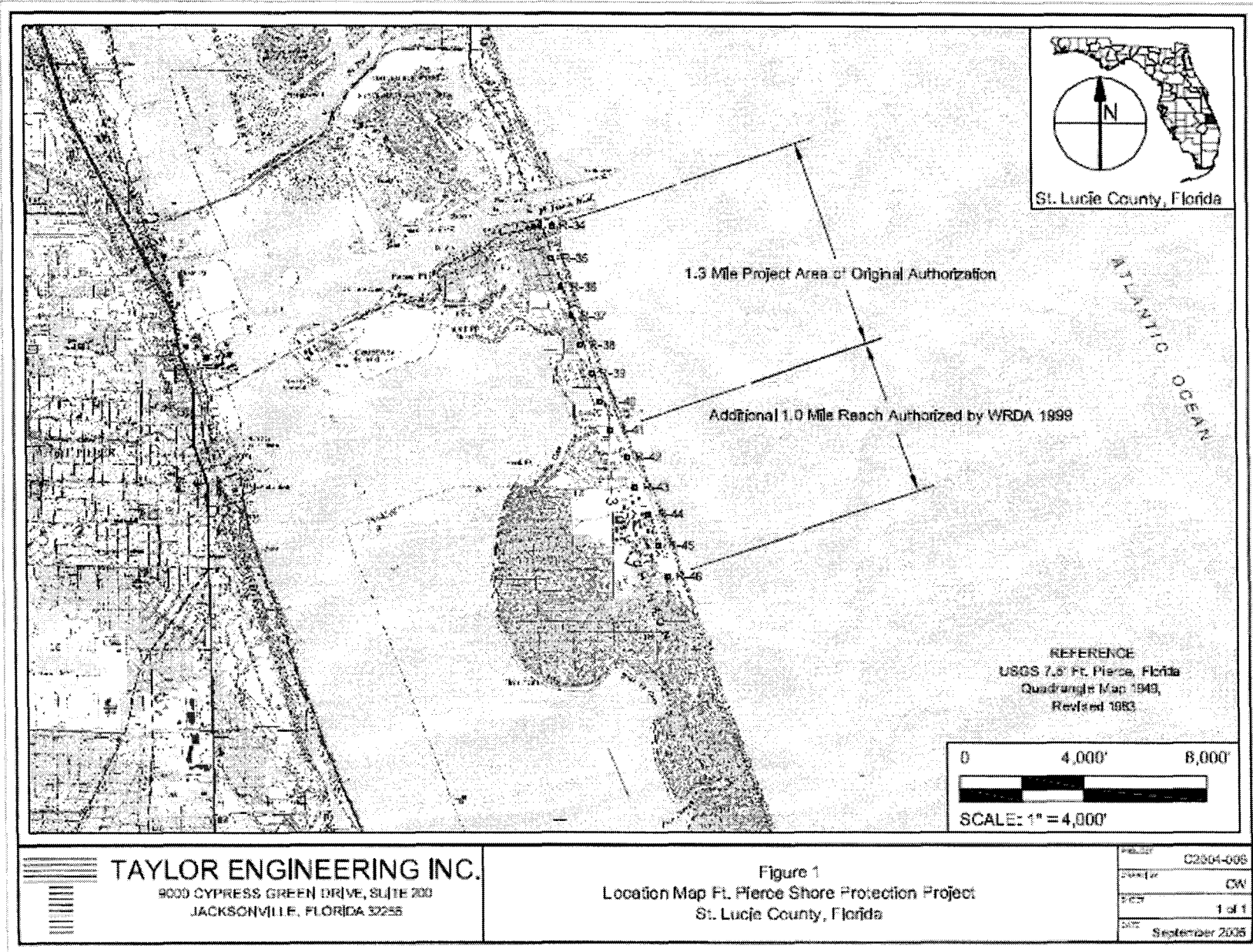
Alternative means for controlling erosion may be necessary. The beach erosion problem within the project area is a result of both long-term recession of the dune line and general lowering of the nearshore beach profile. The long-term erosion of the beach and dune places upland development in a position vulnerable to severe damages, especially during storms. Fort Pierce Inlet, sea level rise, and various coastal storms have exacerbated the erosive pressures in Fort Pierce. The lowering of the nearshore beach profile causes normal seasonal fluctuations in the beach foreshore to undergo significant horizontal translations. This results in a dramatic decrease in the width of protective beach during both the winter and early summer months. Structures and ocean front properties are then subjected to substantial damage from northeasters, tropical storms, and hurricanes because of the lack of protective beach and dune.

2.3 Project Background

Historically, the shoreline near Fort Pierce has been highly unstable and in recent years has experienced considerable beach erosion. Measurements document changes in shoreline position since 1861. Following the construction of the Fort Pierce Inlet in 1930, the shoreline south of the inlet began to experience considerably increased erosion and shoreline recession, while the shoreline north of the inlet experienced increased accretion. Therefore, to some extent, the erosion is attributable to construction of the jetties and navigation channel at Fort Pierce Inlet. Furthermore, this "erosive" beach profile configuration allows larger and larger waves to erode the shoreline as the profile steepens.

The study area consists of 1.3 miles (6,900 ft) of shoreline (FDEP survey monuments R-34 through R-41) located south of Fort Pierce Inlet.

The following are the project objectives:



TAYLOR ENGINEERING INC.
 9000 CYPRESS GREEN DRIVE, SUITE 200
 JACKSONVILLE, FLORIDA 32255

Figure 1
 Location Map FL. Pierse Shore Protection Project
 St. Lucie County, Florida

PROJECT	C2364-068
DESIGNED BY	CW
SHEET	1 of 1
DATE	September 2005

Sponsor Objectives

- RB – Provision of recreation beach
- SDR – Reduction of hurricane and storm damage
- TBE – Protection of tourism-based economy

Federal Objectives

- NED – National Economic Development
- EQ – Environmental Quality
- OSE – Other Social Effect
- RED – Regional Economic Development

2.4 Management Measures Evaluated

An extensive array of non-structural and structural measures was considered. Screening processes to eliminate measures that would not be effective resulted in a final array of alternatives, as follows:

- No-Action Alternative
- Beach Fill Only
- Beach Fill with Stabilization Structures

2.5 Planning Models Employed

The economics model that was employed, the Jacksonville District Storm Damage Model or SDM, falls under the criteria of EC 1105-2-407, Planning Models Improvement Program. However, coordination with the PCX and project vertical team and sponsor resulted in the decision to reevaluate alternates utilizing the PCX –certified Beach-fx model.

2.6 Project Delivery Team

The project delivery team (PDT) is comprised of those individuals directly involved in the development of the decision document. The PDT includes members of the A-E Firm working for the Local Sponsor, St. Lucie Co., FL and the Corps of Engineers. Disciplines are listed below.

Taylor Engineering, Inc. (Taylor)	Rajesh Srinivas - Project Manager
Taylor	Christopher Bender - Planning Formulation
Taylor	Christopher Bender - Economic Analysis
USACE	Environmental Analysis
Taylor	Christopher Bender - Coastal Engineering

USACE	Geotechnical Analysis
U.S. Army Corps of Engineers (USACE)	Cost Engineering
Taylor	Christopher Bender - Hydrodynamic Modeling
Taylor	Christopher Bender - Real Estate Evaluation
USACE	Construction/Operations
USACE	Legal Evaluation

3.0 Levels of Review Determination

In order to determine if independent external peer review is warranted for this particular project, an evaluation was conducted of the following triggering factors (EC 410, Appendix D). Evaluations of individual decision criteria are provided below:

- Is and Environmental Impact Statement required for this study?
Not at this time. An Environmental Assessment is being prepared. Results of the EA will determine whether or not an EIS is required.
- Is the report likely to contain influential scientific information or be a highly influential scientific assessment?
No. The intent is to modify the existing project and provide a new 50 year period of Federal participation.
- Would a selected plan be likely to pose a significant threat to human life?
No. The intent is to modify the existing project and provide a new 50 year period of Federal participation.
- Is total project cost estimated to exceed \$45M. –
Yes. Current estimate, including renourishments, would likely be greater than \$100M.
- Requested by affected State Governor?
No.
- Request by head of a reviewing Federal Agency, if determined likely to have a c adverse impact on environmental, cultural, or other resources under his/her jurisdiction (after implementation of proposed mitigation plans)?
No. No unusually significant interagency interest.
- Significant public dispute as to size, nature or effects?
No. It is anticipated that public issues would not require preparation of an Environmental Impact Statement. An Environmental Assessment will determine the need, or lack.
- Significant public dispute as to the economic or environmental cost or benefit?

No. It is anticipated that public issues would not require preparation of an Environmental Impact Statement. An Environmental Assessment will determine the need, or lack.

- Plan based on novel methods, presents complex challenges for interpretation, contains precedent-setting methods or models, or presents conclusions that are likely to change prevailing practices?

No.

- Any other circumstances where the Chief of Engineers determined IEPR is warranted?

No.

The Jacksonville District opinion is that this post authorization change request would be considered large, likely exceeding \$100 million in total cost, and would require Congressional authorization. The magnitude of the post authorization change triggers the requirement for independent external peer review, even with the absence of other triggering factors. Scope for IEPR is provided in the below section 4.0.

4.0 Levels of Review - Scope

4.1 District Quality Control Plan (DQC) Scope

Internal District control of product quality will be accomplished by supervisory reviews of interim and final products and, as warranted, selected technical specialists. The District quality management plan addresses the conduct and documentation of this fundamental level of review. DQC documentation will be maintained in the project file.

4.2 Planning model certification/approval

The subject report has been in the draft stage since 1998. The original document contained evaluations for two separate periods of analysis, 15 and 50 years. In 2005, the draft GRR was separated into two separate documents based on the different periods of analysis: an LRR was based on the 15-year analysis and the current draft GRR is based on the 50-year analysis. Both studies relied on Jacksonville District's Storm Damage Model (SDM) to provide a recommended plan based on the benefit-to-cost ratio. The LRR was approved in 2007, and its recommended plan is currently implemented.

The Storm Damage Model (SDM) was employed to arrive at the recommended plan presented in a preliminary draft GRR. The Local Sponser requested vertical team approval of SDM for use on the subject report. However, coordination with the PCX and project vertical team and sponsor resulted in the decision to reevaluate alternates utilizing the PCX –certified Beach-fx model.

The study will employ the certified Beach-fx model. No further certification/approval process will be required.

4.3 Agency Technical Review (ATR) Scope.

The relevant National Planning Center of Expertise, in this case for Coastal Storm Damage Reduction (PCX-CSDR), has ultimate responsibility for accomplishing ATR. However, as a result of the long history of this study, prior to ATR responsibility devolving to the PCX, an independent team internal to Jacksonville District was formed and has reviewed the draft GRR completed by the sponsor. Jacksonville District completed the review using DrChecks as required by EC 410. The PCX-CSDR is requested to establish an ATR team from outside the District with ATR lead from outside the Division and provide Agency Technical Review of the revised draft report..

Also, a Cost Estimating Directory of Expertise (Cost Dx) has been established, at the Corps Walla Walla District (NWW). The draft report cost estimate is also to be reviewed by the Cost Dx. The review team will acquire cost estimation review by the Cost Dx. Cost of this activity is estimated at \$10K.

Eight (8) technical disciplines were determined to be appropriate for review of the preliminary draft report including: plan formulation, economics, environmental/NEPA compliance, coastal engineering, design, geotechnical, cost, and real estate. All are well-versed in conduct of coastal storm damage reduction studies.

4.4 IEPR Scope

IEPR will be conducted by a panel of reviewers that will be selected by an outside eligible organization (OEO) as defined in Section 2035(l) Definitions of WRDA 2007. It is initially envisioned the panel will be composed of 3-6 members. It is anticipated that the IEPR team will be comprised of individuals from technical disciplines that were significant in the preparation of the report. Technical disciplines determined to be appropriate for this review include: Plan Formulation, Economics, Environmental Restoration Analysis, Coastal Engineering Design, and Storm Damage Modeling and Safety Assurance. The IEPR will address both government and sponsor prepared content. Any public input by the time of the review will be provided. The Jacksonville District and Sponsor may nominate 1-2 persons to be considered for inclusion on the IEPR panel. At this time it is not anticipated that the public will be asked to nominate potential peer reviewers. The PCX will use contracting instruments to nominate IEPR members and manage the IEPR process. The PCX will manage the IEPR contract. The contracted organization will accomplish the IEPR for the PCX. Contractor management tasks will include identifying, contacting, and selecting reviewers; preparing scopes of work and procuring contracts with reviewers; compiling review comments, compiling District/Sponsor response to comments and compiling comments and responses into an IEPR Report. The PCX will follow EC-1105-2-410 in managing the IEPR contract. DrChecks will be employed to document comments and responses. The review will be documented in a review report.

Additionally, the PCX is directed to consider, relative to panel selection, that scientific assessments in this report are not considered "highly influential", according to definition in OMB Bulletin M-05-03 dated December 16, 2004.

Recent experience suggests that total cost associated with IEPR, including District, PCX, ARO and performing organization costs would be in the rough order of magnitude of \$150,000. A detailed scope of work will be negotiated prior to the review.

4.5 Public Review.

The draft report will be made available for public review of the draft report and Environmental Assessment, currently scheduled for June 2011.

5.0 Consolidated Schedule.

- Draft GRR SAJ Inhouse Independent Technical Review completed January 2008
- ATR of revised draft report, December 2010
- Cost Dx review of draft report, December 2010
- FRC with USACE, February 2011
- IEPR of the Draft Report, June 2011
- Public and Agency review of Draft Report, June 2011

6.0 Summary

The PCX-CSDR is hereby requested to approve this review plan. Follow-on detailed scopes of work will be prepared to accomplish ATR, and IEPR of the revised draft report.

