REVIEW PLAN

Palm Beach County Jupiter/Carlin, Florida, Shore Protection Project
Section 934 Study with Environmental Assessment
(Jupiter/Carlin 934)

Jacksonville District

Project #113167

MSC Approval Date: 12/13/12
Last Revision Date: None

US Army Corps
of Engineers ®

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TABLE OF CONTENTS

1. PURPOSE AND REQUIREMENTS

a. Purpose. This Review Plan defines the scope and level of peer review for the Palm Beach County Jupiter/Carlin, Florida, Shore Protection Project Section 934 Study with Environmental Assessment (Jupiter/Carlin 934).

b. References

(1) Engineering Circular (EC) 1165-2-209, Civil Works Review Policy, 31 Jan 2010
(2) EC 1105-2-412, Assuring Quality of Planning Models, 31 Mar 2010
(3) Engineering Regulation (ER) 1110-1-12, Quality Management, 21 Jul 2006
(4) ER 1105-2-100, Planning Guidance Notebook, Appendix H, Policy Compliance Review and Approval of Decision Documents, Amendment #1, 20 Nov 2007
(5) PMP for study

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 outlines four general levels of review: District Quality Control/Quality Assurance (DQC), Agency Technical Review (ATR), Independent External Peer Review (IEPR), and Policy and Legal Compliance Review. In addition to these levels of review, decision documents are subject to cost engineering review and certification (per EC 1165-2-209), and planning models are subject to certification/approval (per EC 1105-2-412).

2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION

The RMO is responsible for managing the overall peer review effort described in this Review Plan. The RMO for decision documents is typically either a Planning Center of Expertise (PCX) or the Risk Management Center (RMC), depending on the primary purpose of the decision document. The RMO for the peer review effort described in this Review Plan is National Planning Center of Expertise for Coastal Storm Damage Reduction (PCX-CSDR). This is a single-purpose Hurricane and Storm Damage Reduction (HSDR) project. Consequently, coordination with other planning centers of expertise is not needed.

The PCX-CSDR will coordinate with the Cost Engineering Directory of Expertise (DX) to ensure the appropriate expertise is included on the review teams to assess the adequacy of cost estimates, construction schedules and contingencies.

3. STUDY INFORMATION

a. Decision Document. The Palm Beach County Jupiter/Carlin, Florida, Shore Protection Project Section 934 Study with Environmental Assessment (Jupiter/Carlin 934) is intended to provide the basis for extension of Federal cost sharing during the remaining 33 years of the 50-year period of Federal participation. Section 934 of the 1986 Water Resource Development Act (WRDA) (Public Law 99-662) in combination with Section 506 (b)(3)(B) of WRDA 1996 provides authority to the Secretary of the Army, acting through the U.S. Army Corps of Engineers (USACE), to carry out periodic nourishment for the Jupiter/Carlin shoreline protection project for a period of 50 years beginning on the date of initiation of construction. Federal participation in the project expired in

2005 under the Project Partnership Agreement (PPA). NEPA documentation is being prepared to accompany the 934 Report. Approval level of the 934 Report will be the Assistant Secretary of the Army (ASA (CW))**.**

Study/Project Description. The Jupiter/Carlin 934 report is intended to serve as the decision document for extension of federal cost sharing during the remaining 33 years of the 50-year nourishment period. The Palm Beach County Shore Protection Project (SPP), a single purpose hurricane and storm damage reduction project, calls for restoring approximately 1.1 miles of beach between Florida Department of Environmental Protection (FDEP) reference monument R-13 (Jupiter Inlet south jetty) and R-19 (Carlin Park) (Figure 1). The project consists of a Federally authorized berm with 513,000 cubic yards of advanced fill for 1.1 miles, to be renourished every 7 years. The fill restores the October 1989 mean high water (MHW) shoreline and provides additional material to offset erosive losses for seven years between each subsequent renourishment. Palm Beach County constructed the initial project in 1995 and renourished the beach in 2002. The sponsor, Palm Beach County, Florida, will produce the 934 Report according to USACE policy requirements, with potential reimbursement of the federal share of an authorized project cost by USACE under Section 206 of WRDA 1992. . Jacksonville District will provide coordination of the Environmental Assessment, and DQC, ATR, Model Review, and IEPR processes, in concert with the PCX-CSDR. The 934 Report includes updating economics costs and benefits using the Beach-fx model and MCACES cost estimates. The cost of initial nourishment and 5 remaining renourshments over the next 33 years is currently $44,002,300.

Background on the need for Section 934 Extension:

The original authorization for the Jupiter/Carlin Segment project was a general authorization for initial Palm Beach shore protection project construction under WRDA 1962. However, the project was not constructed at that time. WRDA 1976, Section 156, stated "The Secretary of the Army, acting through Chief of Engineers, is authorized to provide periodic beach nourishment in the case of each water resources development project where such nourishment has been authorized for a limited period for such additional period as he determines necessary but in no event such additional period extend beyond the fifteenth year which begins after the date of initiation of construction of such project." WRDA 1986 added Section 934 to amend Section 156 of WRDA 1976 to change the authorization from "15" to "50". The General Design Memorandum (GDM) Report for all of Palm Beach was prepared in 1987 (Figure 2). The GDM Addendum for the Jupiter Carlin segment was completed in 1994 and outlined the project for initial construction, also changing the authorized project from 1.2 to 1.1 miles. The GDM Addendum was approved Feb 23, 1995. The Jupiter Carlin project initial construction began on April 13, 1995 and was completed May 4, 1995.

The existing PPA was executed March 21, 1995 for an authorized periodic nourishment period of 10 years following completion of initial construction. The PPA for periodic nourishment expired 10 years from the completion of initial construction, thus, in May 4, 2005. WRDA 1996 (Section 506(b)(3)(B)) authorized the Secretary to carry out periodic beach nourishment for a period of 50 years beginning on the date of initiation of construction, if the Secretary determines it necessary for the Palm Beach projects, including Jupiter Carlin.

If the Addendum had been approved after the 1996 WRDA, Jupiter Carlin could have been approved for a 50 year period of Federal participation. However, because the 1995 Addendum had been approved just a year earlier than the 1996 WRDA, it could not serve as the authorizing document to extend Federal participation. Therefore, the 934 Report, in progress, will serve as the decision document to extend federal participation to 50 years from the date of initial construction (April 13, 1995) and if approved, will extend it through April 13, 2045.

b. Factors Affecting the Scope and Level of Review.

This section addresses the factors affecting the risk informed decisions on the appropriate scope and level of review. The discussion is intended to be detailed enough to assess the level and focus of review and support the PDT, PCX, and vertical team decisions on the appropriate level of review and types of expertise represented on the various review teams. The cost of initial nourishment and 5 remaining renourshments over the next 33 years is currently $44,002,300. Bulleted issues are addressed, as follows:

- If parts of the study will likely be challenging (with some discussion as to why or why not and, if so, in what ways – consider technical, institutional, and social challenges, etc.):
    - No. The intent of this beach fill project is to extend Federal participation from the initial 15 years (under WRDA 1972 and 1986) to a 50 year period of Federal participation (under 1996 WRDA). The extension will allow continuation of hurricane and storm damage reduction through beach nourishment over a 1.1 mile segment. Initial construction and the 2002 nourishment performed as expected.

- A preliminary assessment of where the project risks are likely to occur and what the magnitude of those risks might be (e.g., what are the uncertainties and how might they affect the success of the project):
    - The only anticipated risks are associated with the unpredictability of the number and severity of future storm events that may affect the duration of the renourishment benefits in the Beach-fx model. Previous nourishments performed as intended.

- If the project will likely be justified by life safety or if the project likely involves significant threat to human life/safety assurance (with some discussion as to why or why not and, if so, in what ways – consider at minimum the safety assurance factors described in EC 1165-2-209 including, but not necessarily limited to, the consequences of non-performance on project economics, the environmental and social well-being [public safety and social justice]; residual risk; uncertainty due to climate variability, etc.):
    - No. The project would be justified on basis of storm damage reduction benefits. Life safety is not at issue since it is assumed that residents would evacuate, in the event of a major storm event. The project is not intended to, nor does it claim, to produce life safety benefits.

- If there is a request by the Governor of an affected state for a peer review by independent experts:
    - There has not been such a request.

- If the project/study is likely to involve significant public dispute as to the size, nature, or effects of the project (with some discussion as to why or why not and, if so, in what ways):
    - It is anticipated that public issues would not be significant and would not require preparation of an Environmental Impact Statement. There have been no significant public issues associated with the previous two nourishments and none are anticipated in association with the proposed extension of Federal participation.

- If the project/study is likely to involve significant public dispute as to the economic or environmental cost or benefit of the project (with some discussion as to why or why not and, if so, in what ways):

    - It is anticipated that public issues would not be significant and would not require preparation of an Environmental Impact Statement. There have been no significant public issues associated with the previous two nourishments and none are anticipated in association with the proposed extension of Federal participation.

- If the information in the decision document or anticipated project design is likely to be based on novel methods, involve the use of innovative materials or techniques, present complex challenges for interpretation, contain precedent-setting methods or models, or present conclusions that are likely to change prevailing practices (with some discussion as to why or why not and, if so, in what ways):

    - Standard beach fill methods will be employed, following methodology from the first two nourishments.

- If the project design is anticipated to require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design construction schedule (with some discussion as to why or why not and, if so, in what ways:

    - Contemplated renourishments are intended to restore the October 1989 mean high water (MHW) shoreline and to provide additional material to offset erosive losses for seven years between each subsequent renourishment. This is not expected to require redundancy, unusual resiliency and/or robustness, unique construction sequencing or reduced or overlapping design construction schedule.

c. In-Kind Contributions. In-kind products and analyses, addressed in section 3.b, above, are subject to DQC, ATR, and IEPR. No in-kind services are being provided by the sponsor. However, this report is being prepared by the Sponsor for potential reimbursement under Section 206 of WRDA 1992.

4. DISTRICT QUALITY CONTROL (DQC)

All decision documents (including supporting data, analyses, environmental compliance documents, etc.) shall undergo DQC. DQC is an internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the Project Management Plan (PMP). The Jacksonville district will manage the DQC.

a. Documentation of DQC. Internal District Quality control of product quality will be accomplished by DQC team reviews of interim and final Sponsor-prepared products.

b. Products to Undergo DQC. Interim and final Sponsor-prepared products will be subjected to DQC.

c. Required DQC Expertise. Experienced Jacksonville District team members, representing all pertinent disciplines, will participate in DQC, including: plan formulation, economics, environmental compliance, engineering design, coastal hydraulics and hydrology, geotechnical engineering, cost engineering and real estate. These team members will not have had direct involvement in providing

guidance or assistance to the Sponsor and their contractor throughout the development of the 934 Report.

5. AGENCY TECHNICAL REVIEW (ATR)

ATR is mandatory for all decision documents (including supporting data, analyses, environmental compliance documents, etc.). The objective of ATR is to ensure consistency with established criteria, guidance, procedures, and policy. The ATR will assess whether the analyses presented are technically correct and comply with published USACE guidance, and that the document explains the analyses and results in a reasonably clear manner for the public and decision makers. ATR is managed within USACE by the designated RMO and is conducted by a qualified team from outside the home district that is not involved in the day-to-day production of the project/product. ATR teams will be comprised of senior USACE personnel and may be supplemented by outside experts as appropriate. The ATR team lead will be from outside the home MSC.

a. Products to Undergo ATR. The Draft 934 Report will undergo ATR. The Final 934 Report will undergo an ATR consisting of backchecks to previous comments received to ensure appropriate revisions have been made to the report. The cost estimate associated with the 934 Report will undergo ATR through the Cost DX. The draft EA will also go to ATR with the 934 Report.

b. Required ATR Team Expertise. An ATR Team Leader and eight (8) technical disciplines were determined to be appropriate for review of the preliminary draft report including: plan formulation, economics, environmental resources, coastal engineering, geotechnical engineering, civil engineering, cost engineering and real estate. All should be well-versed in conduct of coastal storm damage reduction studies. Reviewers will be from outside of the project district and the review lead will be from outside the project MSC.

ATR Team Members/Disciplines	Expertise Required
ATR Lead	The ATR lead will be a senior professional with extensive experience in preparing Civil Works decision documents and conducting ATR. The lead will also have the necessary skills and experience to lead a virtual team through the ATR process. The ATR lead may also serve as a reviewer for a specific discipline (such as planning, economics, environmental resources, etc).
Plan Formulation	The Planning reviewer will be a senior water resources planner with a minimum of 5 years of experience in coastal storm damage reduction projects.
Economics	The economics reviewer will be a senior water resources economist with a minimum of 5 years of experience in coastal storm damage reduction projects. Specifically with experience in application of Beach-fx.
Environmental Resources	The environmental reviewer will be an expert in the field of environmental resources and have a thorough understanding of NEPA, coastal ecosystems, and HSDR projects.
Coastal Engineering	The coastal engineering reviewer will be an expert in the field of coastal engineering, will have a minimum of five years of coastal engineering experience, and have a thorough understanding of HSDR projects, beach nourishment, and offshore borrow areas.
Geotechnical Engineering	The geotechnical engineering reviewer will be a senior engineer with a minimum of five years of experience in geotechnical issues

	associated with coastal storm damage reduction projects.
Civil Engineering	The civil engineering reviewer will be a senior civil engineer with a minimum of 5 years of experience in coastal storm damage reduction projects.
Cost Engineering	The cost engineering reviewer will be a senior cost engineer with a minimum of 5 years of experience in coastal storm damage reduction projects. This team member will be designated by the Cost DX.
Real Estate	The real estate reviewer will be a senior real estate specialist with a minimum of 5 years of experience in coastal storm damage reduction projects.

c. Documentation of ATR. DrChecks review software will be used to document all ATR comments, responses and associated resolutions accomplished throughout the review process. Comments should be limited to those that are required to ensure adequacy of the product. The four key parts of a quality review comment will normally include:

(1) The review concern – identify the product's information deficiency or incorrect application of policy, guidance, or procedures;
(2) The basis for the concern – cite the appropriate law, policy, guidance, or procedure that has not be properly followed;
(3) The significance of the concern – indicate the importance of the concern with regard to its potential impact on the plan selection, recommended plan components, efficiency (cost), effectiveness (function/outputs), implementation responsibilities, safety, Federal interest, or public acceptability; and
(4) The probable specific action needed to resolve the concern – identify the action(s) that the reporting officers must take to resolve the concern.

In some situations, especially addressing incomplete or unclear information, comments may seek clarification in order to then assess whether further specific concerns may exist.

The ATR documentation in Dr. Checks will include the text of each ATR concern, the PDT response, a brief summary of the pertinent points in any discussion, including any vertical team coordination (the vertical team includes the district, RMO, MSC, and HQUSACE), and the agreed upon resolution. If an ATR concern cannot be satisfactorily resolved between the ATR team and the PDT, it will be elevated to the vertical team for further resolution in accordance with the policy issue resolution process described in either ER 1110-1-12 or ER 1105-2-100, Appendix H, as appropriate. Unresolved concerns can be closed in Dr. Checks with a notation that the concern has been elevated to the vertical team for resolution.

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 organizational affiliations, and include a short paragraph on both the credentials and relevant experiences of each reviewer;
- Include the charge to the reviewers;
- Describe the nature of their review and their findings and conclusions;
- Identify and summarize each unresolved issue (if any); and

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

ATR may be certified when all ATR concerns are either resolved or referred to the vertical team for resolution and the ATR documentation is complete. The ATR Lead will prepare a Statement of Technical Review certifying that the issues raised by the ATR team have been resolved (or elevated to the vertical team). A Statement of Technical Review should be completed, based on work reviewed to date, for the AFB, draft report, and final report. A sample Statement of Technical Review is included in Attachment 2.

6. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)

Type I IEPR is required for all **decision documents** except where no mandatory triggers apply, criteria for an exclusion are met, and a risk-informed recommendation justifies exclusion. 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. A risk-informed decision, as described in EC 1165-2-209, is made as to whether IEPR is appropriate. IEPR panels will consist of independent, recognized experts from outside of the USACE in the appropriate disciplines, representing a balance of areas of expertise suitable for the review being conducted. There are two types of IEPR:

- Type I IEPR. Type I IEPR reviews are managed outside the USACE and are conducted on project studies. Type I IEPR panels assess the adequacy and acceptability of the economic and environmental assumptions and projections, project evaluation data, economic analysis, environmental analyses, engineering analyses, formulation of alternative plans, methods for integrating risk and uncertainty, models used in the evaluation of environmental impacts of proposed projects, and biological opinions of the project study. Type I IEPR will cover the entire decision document or action and will address all underlying engineering, economics, and environmental work, not just one aspect of the study. For decision documents where a Type II IEPR (Safety Assurance Review) is anticipated during project implementation, safety assurance shall also be addressed during the Type I IEPR per EC 1165-2-209.

- Type II IEPR. Type II IEPR, or Safety Assurance Review (SAR), are managed outside the USACE and are conducted on design and construction activities for hurricane, storm, and flood risk management projects or other projects where existing and potential hazards pose a significant threat to human life. Type II IEPR panels will conduct reviews of the design and construction activities prior to initiation of physical construction and, until construction activities are completed, periodically thereafter on a regular schedule. The reviews shall consider the adequacy, appropriateness, and acceptability of the design and construction activities in assuring public health safety and welfare.

a. Decision on IEPR. The study is limited in scope and evaluates the extension of Federal participation in a hurricane and storm damage The Jupiter Carlin 934 reduction project where the recommended plan is placing beach fill over a 1.1 mile segment. The subject project was initially constructed in 1995 and has been operated successfully; this report is intended only to evaluate the extension of Federal participation. There is no project reformulation involved. This project has little to no risk and would most likely not benefit from Type I IEPR. Therefore, an exclusion is being requested.

Risk Informed Decision:

- The project does not meet the mandatory triggers for Type I IEPR described in Paragraph 11.d.(1) and Appendix D of EC 1165-2-209. Additionally:

  - What are the consequences of non-performance on project economics, the environmental and social well-being (public safety and social justice)?
    - There are no consequences. This is a beach fill placement project and will reduce the risk of hurricane and storm damages in the surrounding area.

  - Are the products likely to contain influential scientific information or be highly influential scientific assessment?
    - No. This is an extension of federal participation on an existing and straightforward beach fill project.

  - Does the decision document meet any of the possible exclusions described in Paragraph 11.d.(3) and Appendix D of EC 1165-2-209, and if so, how?
    - No. See below.

      - Is there a significant threat to human life?

      No significant threat to human life exists. The project involves continuation of federal participation for renourishment of a 1.1 mile segment to provide hurricane and storm damage reduction benefits to the surrounding area.

      - Does the estimated total cost of the project, including mitigation costs, exceed $45 million?

      No. The feasibility phase cost estimate for the remaining 33 years of federal participation including the initial nourishment and all subsequent nourishments is approximately $44 million.

      - Has the Governor of the affected State (Florida) requested a peer review by independent experts?

      No.

      - Has the head of a Federal or state agency charged with reviewing the project study determined that the project is likely to have a significant adverse impact on environmental, cultural, or other resources under the jurisdiction of the agency after implementation of proposed mitigation plans and has he/she requested an IEPR?

      No. Federal and state agencies charged with review of the project have not determined that there are any significant adverse impacts resulting from the proposed project. An EIS is not required for this project. Although the project may affect certain species as identified in the Environmental Assessment, the appropriate coordination will be completed under the Endangered Species Act.

      - Is there significant public dispute as to size, nature or effects of the project?

      No. Significant public dispute is not anticipated.

      - Is there significant public dispute as to economic or environmental cost or benefit of the project?

No. Significant public dispute is not anticipated.

- Is information based on novel methods, or does the study present complex challenges for interpretation, contain precedent-setting methods or models, or present conclusions that are likely to change prevailing practices?

No. Interpretation challenges, for this project, are typical of that for a beach renourishment project and are not expected to present complex challenges for interpretation. Well established analytical methods and modes were employed and are not considered precedent-setting. Study conclusions are expected to be typical of a beach renourishment project and are not expected to change prevailing practices.

- Has the Chief of Engineers identified any other circumstance to determine that Type I IEPR is warranted?

No.

In summary, the Jupiter Carlin 934 project to extend Federal participation does not invoke any of the mandatory triggers requiring IEPR. Therefore, an exclusion is being requested. The following is a summary of the relevant issues to support exclusion from IEPR.

Factors to consider on this project include:

- It does not include an EIS;
- Is not controversial;
- Has no adverse impacts on scarce or unique tribal, cultural, or historic resources;
- Has no substantial adverse impacts on fish and wildlife species and their habitat prior to the implementation of mitigation measures; and
- Has no adverse impact on a species listed as endangered or threatened species under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) or the critical habitat of such species designated under such Act.

Based on the project as currently envisioned, the District Chief of Engineering, as the Engineer-In-Responsible-Charge, does not recommend a Type II IEPR Safety Assurance Review of this project at this time. A risk-informed decision concerning the timing and the appropriate level of reviews for the project implementation phase will be prepared and submitted for approval in an updated Review Plan prior to initiation of the design/implementation phase of this project.

b. Products to Undergo Type I IEPR. We do not believe the project will benefit from an IEPR review. An exclusion from IEPR is being requested.

c. Required Type I IEPR Panel Expertise. In the event a Type 1 exclusion is not granted, the following provides a description of the proposed panel members and expertise. The proposed four member panel includes the necessary expertise to assess the engineering, environmental, and economic adequacy of the decision document as required by EC 1165-2-209, Appendix D. The Outside Eligible Organization (OEO) will determine the final participants on the panel. The following table lists the suggested types of disciplines that might be included on the panel.

IEPR Panel Members/Disciplines	Expertise Required
Economics	The Economics Panel member will be a scientist from academia, a public agency, non-governmental entity, or an Architect-Engineer or Consulting Firm and hold a M.S. in the field of economics with a specialty, or at least five years experience, in coastal economic evaluation or flood risk evaluation is required.
Environmental	The environmental panel member will be a scientist from academia, public agency, non-governmental entity, or an Architect-Engineer or Consulting Firm with a minimum 5 years demonstrated experience with environmental resources on the southern Atlantic coast of the United States.
Coastal Engineering	Coastal Engineer. Member will be a coastal or ocean engineer with a minimum of 5 years experience in coastal hydraulics and hydrology. The panel member should be familiar with USACE application of risk and uncertainty analyses in coastal damage reduction studies. The panel member should be familiar with USACE application of risk and uncertainty analyses in coastal damage reduction studies. The panel member should also be familiar with standard USACE hydraulic and hydrologic computer models and the storm damage model Beach-fx.
Geotechnical Engineering	The panelist will be an Engineer from academia, a public agency whose primary mission is centered around coastal damage reduction, or an Architect-Engineer or Consulting Firm with a minimum 5 years demonstrated experience in geotechnical studies and design of stabilizing dunes, bluffs, and beach berms with a minimum MS degree in Geotechnical Engineering. The Panel Member should be familiar with geotechnical practices used in Florida, and active participation in related professional societies is encouraged.

d. Documentation of Type I IEPR. In the event an IEPR exclusion is not granted, the IEPR panel will be selected and managed by an Outside Eligible Organization (OEO) per EC 1165-2-209, Appendix D. Panel comments will be compiled by the OEO and should address the adequacy and acceptability of the economic, engineering and environmental methods, models, and analyses used. IEPR comments should generally include the same four key parts as described for ATR comments in Section 4.d above. The OEO will prepare a final Review Report that will accompany the publication of the final decision document and shall:

- Disclose the names of the reviewers, their organizational affiliations, and include a short paragraph on both the credentials and relevant experiences of each reviewer;
- Include the charge to the reviewers;
- Describe the nature of their review and their findings and conclusions; and
- Include a verbatim copy of each reviewer's comments (either with or without specific attributions), or represent the views of the group as a whole, including any disparate and dissenting views.

The final Review Report will be submitted by the OEO no later than 60 days following the close of the public comment period for the draft decision document. USACE shall consider all recommendations contained in the Review Report and prepare a written response for all

recommendations adopted or not adopted. The final decision document will summarize the Review Report and USACE response. The Review Report and USACE response will be made available to the public, including through electronic means on the internet.

7. POLICY AND LEGAL COMPLIANCE REVIEW

All decision documents will be reviewed throughout the study process for their compliance with law and policy. Guidance for policy and legal compliance reviews is addressed in Appendix H, ER 1105-2-100. These reviews culminate in determinations that the recommendations in the reports and the supporting analyses and coordination comply with law and policy, and warrant approval or further recommendation to higher authority by the home MSC Commander. DQC and ATR augment and complement the policy review processes by addressing compliance with pertinent published Army policies, particularly policies on analytical methods and the presentation of findings in decision documents.

8. COST ENGINEERING DIRECTORY OF EXPERTISE (DX) REVIEW AND CERTIFICATION

All decision documents shall be coordinated with the Cost Engineering DX, located in the Walla Walla District. The DX will assist in determining the expertise needed on the ATR team and Type I IEPR team (if required) and in the development of the review charge(s). The DX will also provide the Cost Engineering DX certification. The RMO is responsible for coordination with the Cost Engineering DX.

9. MODEL CERTIFICATION AND APPROVAL

EC 1105-2-412 mandates the use of certified or approved models for all planning activities to ensure the models are technically and theoretically sound, compliant with USACE policy, computationally accurate, and based on reasonable assumptions. Planning models, for the purposes of the EC, are defined as any models and analytical tools that planners use to define water resources management problems and opportunities, to formulate potential alternatives to address the problems and take advantage of the opportunities, to evaluate potential effects of alternatives and to support decision making. The use of a certified/approved planning model does not constitute technical review of the planning product. The selection and application of the model and the input and output data is still the responsibility of the users and is subject to DQC, ATR, and IEPR (if required).

EC 1105-2-412 does not cover engineering models used in planning. The process the Hydrology, Hydraulics and Coastal Community of Practice (HH&C CoP) of USACE follows to validate engineering software for use in planning studies and to satisfy the requirements of the Corps' Scientific and Engineering Technology (SET) initiative is provided in Enterprise Standard (ES)-08101 Software Validation for the Hydrology, Hydraulics and Coastal Community of Practice.. As part of the USACE Scientific and Engineering Technology (SET) Initiative, many engineering models have been identified as preferred or acceptable for use on Corps studies and these models should be used whenever appropriate. The selection and application of the model and the input and output data is still the responsibility of the users and is subject to DQC, ATR, and IEPR (if required).

a. Planning Models. The following planning models are anticipated to be used in the development of the decision document:

The planning economics model that will be employed is Beach-fx, a certified Corps-developed national model.

b. Engineering Models. The following engineering models are anticipated to be used in the development of the decision document:

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.

10. REVIEW SCHEDULES AND COSTS

a. ATR Schedule and Cost. ATR of the Draft 934 Report is currently scheduled for March 2013. It is estimated to cost approximately $50,000.

Task	Start Date	End Date
Cost Risk Analysis	Feb-13	Mar-13
Agency Technical Review (ATR) Conducted by PCX	Mar-13	Apr-13
In Progress Review with SAD	Apr-13	May-13
SAD Policy Review Provided	May-13	Jun-13
Report Released for 30-Day Public and Agency Review (Resource Agencies)	Jul-13	Aug-13
*IEPR (concurrent to Public Review)	Jul-13	Nov-13
SAJ Sends Sect 934 Report/NEPA Doc. to SAD/CECW	Nov-13	Dec-13
SAD Sends CECW Sect 934 Report	Dec-13	Jan-14
CECW Sends Sect 934 Report to ASA (CW)	Mar-14	Apr-14
ASA (CW) Approves Report	Jul-14	Aug-14
WQC & DA Permits Received by Sponsor	Aug-14	Sep-14
Sponsor Provides Financial Info for PPA Package	Aug-14	Sep-14

b. Type I IEPR Schedule and Cost. If an IEPR exclusion is not granted, then IEPR would be scheduled concurrent to public review, in July 2013. It is estimated to cost approximately $200,000.

c. Model Certification/Approval Schedule and Cost. The planning model employed in this study, Beach –Fx, is an approved model. The engineering models used in this study, SBEACH and GENESIS, are exempted from model certification under the guidance in the Engineering and Construction Bulletin 2007-6 dated 10 April 2007.

11. PUBLIC PARTICIPATION

The draft report and Environmental Assessment will be made available for public. Public review is currently scheduled for July 2013.

12. REVIEW PLAN APPROVAL AND UPDATES

The South Atlantic Division Commander is responsible for approving this Review Plan. The Commander's approval reflects vertical team input (involving district, MSC, RMO, and HQUSACE members) as to the appropriate scope and level of review for the decision document. Like the PMP, the Review Plan is a living document and may change as the study progresses. The home district is

responsible for keeping the Review Plan up to date. Minor changes to the review plan since the last MSC Commander approval are documented in Attachment 3. Significant changes to the Review Plan (such as changes to the scope and/or level of review) must be re-approved by the MSC Commander following the process used for initially approving the plan. The latest version of the Review Plan, along with the Commanders' approval memorandum, will be posted on the Home District's webpage. The latest Review Plan will also be provided to the RMO and home MSC.

13. REVIEW PLAN POINTS OF CONTACT

Public questions and/or comments on this review plan can be directed to the following points of contact:

- Jacksonville District Project Manager, 904-232-3292
- South Atlantic Division Point of Contact, 404-562-5228
- PCX-CXDR Point of Contact, 347-370-4571

Figure 1: Project Location

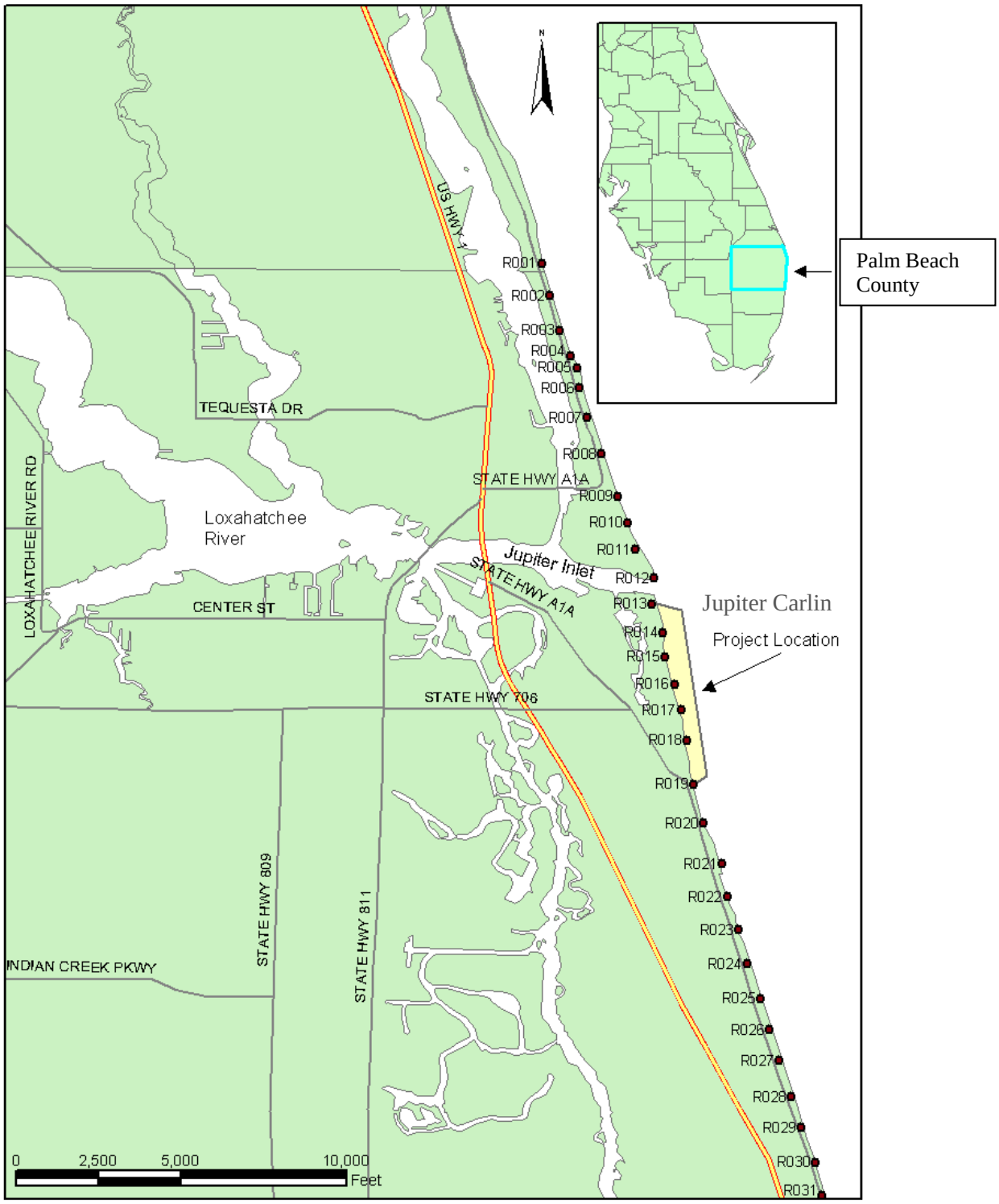

Figure 2: Project location with regard to other Palm Beach projects

ATTACHMENT 1: TEAM ROSTERS

JACKSONVILLE DISTRICT PDT/DQC TEAM MEMBERS

Team Roster intentionally removed.

ATR TEAM MEMBERS TO BE DESIGNATED BY THE PCX-CSDR

ATTACHMENT 2: SAMPLE STATEMENT OF TECHNICAL REVIEW FOR DECSION DOCUMENTS

COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for the <type of product> for <project name and location>. The ATR was conducted as defined in the project's Review Plan to comply with the requirements of EC 1165-2-209. During the ATR, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of: assumptions, methods, procedures, and material used in analyses, alternatives evaluated, the appropriateness of data used and level obtained, and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing US Army Corps of Engineers policy. The ATR also assessed the District Quality Control (DQC) documentation and made the determination that the DQC activities employed appear to be appropriate and effective. All comments resulting from the ATR have been resolved and the comments have been closed in DrChecks[sm].

SIGNATURE _____ _____

Name — Date
ATR Team Leader
Office Symbol/Company

SIGNATURE _____ _____

Name — Date
Project Manager
Office Symbol

SIGNATURE _____ _____

Name — Date
Architect Engineer Project Manager[1]
Company, location

SIGNATURE _____ _____

Name — Date
Review Management Office Representative
Office Symbol

CERTIFICATION OF AGENCY TECHNICAL REVIEW

Significant concerns and the explanation of the resolution are as follows: Describe the major technical concerns and their resolution.

As noted above, all concerns resulting from the ATR of the project have been fully resolved.

SIGNATURE _____ _____

Name — Date
Chief, Engineering Division
Office Symbol

SIGNATURE _____ _____

Name — Date
Chief, Planning Division
Office Symbol

[1] Only needed if some portion of the ATR was contracted

ATTACHMENT 3: REVIEW PLAN REVISIONS

Revision Date	Description of Change	Page / Paragraph Number

ATTACHMENT 4: ACRONYMS AND ABBREVIATIONS

Term	Definition	Term	Definition
ASA(CW)	Assistant Secretary of the Army for Civil Works	PCX	Planning Center of Expertise
ATR	Agency Technical Review	PDT	Project Delivery Team
CSDR	Coastal Storm Damage Reduction	PMP	Project Management Plan
DQC	District Quality Control	PL	Public Law
EA	Environmental Assessment	QA	Quality Assurance
EC	Engineer Circular	QC	Quality Control
HQUSACE	Headquarters, U.S. Army Corps of Engineers	RED	Regional Economic Development
IEPR	Independent External Peer Review	RMC	Risk Management Center
LRR	Limited Reevaluation Report	RMO	Review Management Organization
MSC	Major Subordinate Command, in this case, SAD	RTS	Regional Technical Specialist
NED	National Economic Development	SAR	Safety Assurance Review
NEPA	National Environmental Policy Act	USACE	U.S. Army Corps of Engineers
OMRR&R	Operation, Maintenance, Repair, Replacement and Rehabilitation	WRDA	Water Resources Development Act