

REVIEW PLAN

**Martin County, Florida, Hurricane and Storm Damage Reduction Project
Limited Reevaluation Report (LRR) and Supplemental Environmental Impact
Statement (SEIS)**

Jacksonville District

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**US Army Corps
of Engineers®**

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1. PURPOSE AND REQUIREMENTS

a. **Purpose.** This Review Plan defines the scope and level of peer review for the (single purpose) Martin County, Florida, Hurricane and Storm Damage Reduction Project, Limited Reevaluation Report (LRR) and Supplemental Environmental Impact Statement (SEIS)

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, xxx 2010
- (3) Engineering Regulation (ER) 1110-1-12, Quality Management, 30 Sep 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) Martin County, Florida, Project Management Plan, April 2003
- (6) Jacksonville District and South Atlantic Division Quality Management Plans

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 model certification/approval (per EC 1105-2-412).

- (1) District Quality Control/Quality Assurance (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 home district shall manage DQC. Documentation of DQC activities is required and should be in accordance with the Quality Manual of the District and the home Major Subordinate Command (MSC).
- (2) 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 US Army Corps of Engineers (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 a designated Risk Management Organization (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. To assure independence, the leader of the ATR team shall be from outside the home MSC.

- (3) Independent External Peer Review (IEPR). IEPR may be required for **decision documents** under certain circumstances. 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 is generally for decision documents and Type II is generally for implementation products.
- (a) 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 an biological opinions of the project study. Type I IEPR will cover the entire decision document or action and will address all the 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.
- (b) 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.
- (4) 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 Chief of Engineers. 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.
- (5) Cost Engineering Review and Certification. All **decision documents** shall be coordinated with the Cost Engineering Directory of Expertise (DX), located in the Walla Walla District. The DX, or in some circumstances regional cost personnel that are pre-certified by the DX, will conduct the cost ATR. The DX will provide certification of the final total project cost.
- (6) Model Certification/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. EC 1105-2-412 does not cover engineering models used in planning. The responsible use of well-known and proven USACE developed and commercial engineering software will continue and the professional practice of documenting the application of the software and modeling results will be followed. Use of engineering models is also subject to DQC, ATR, and IEPR.

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 South Atlantic Division (SAD).

The RMO will coordinate with the Cost Engineering Directory of Expertise (DX) to conduct ATR of cost estimates, construction schedules and contingencies

3. STUDY INFORMATION

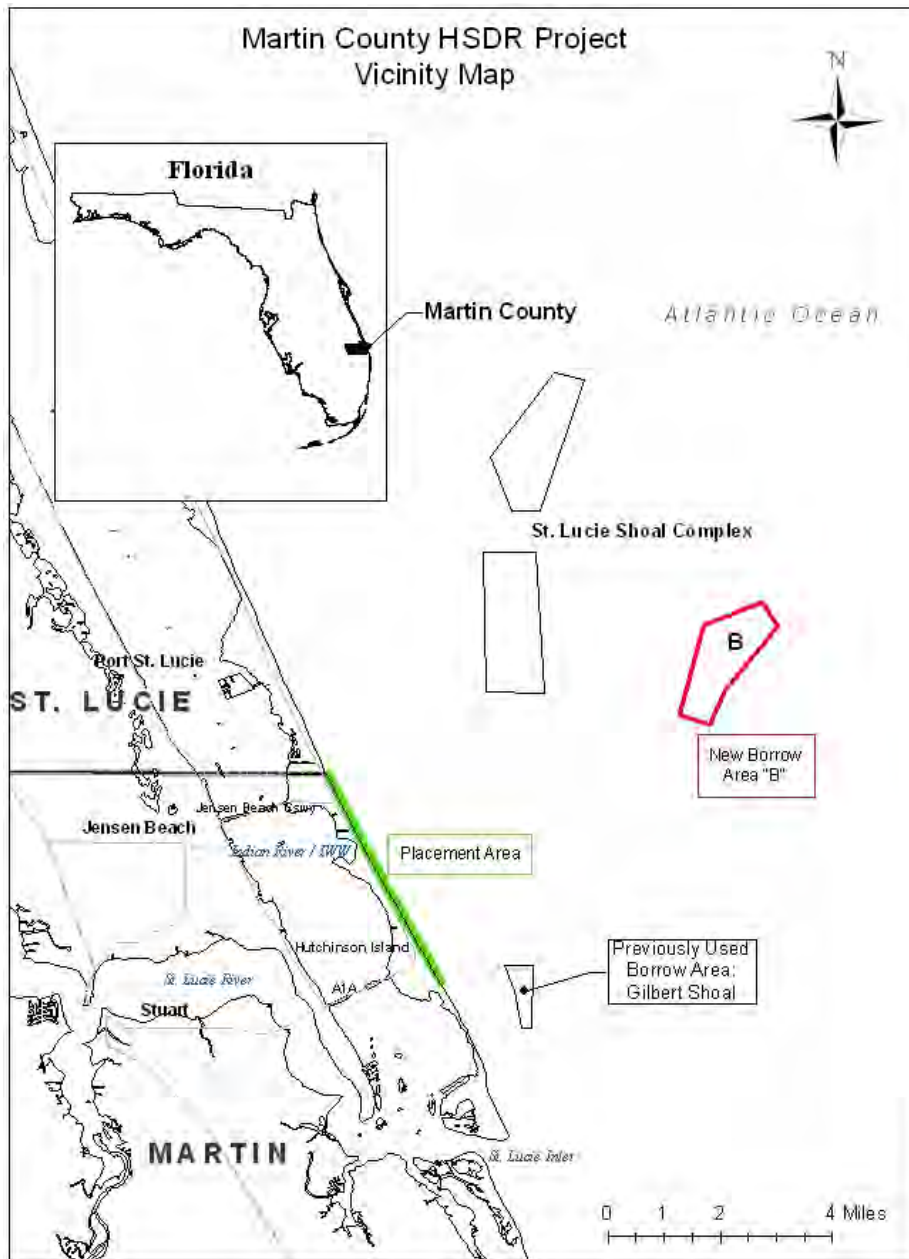
a. Decision Document.

The decision document is the Martin County, Florida, Hurricane and Storm Damage Reduction Project Limited Reevaluation Report and Supplemental Environmental Impact Statement. The LRR purpose is to verify the economics of the remaining periodic nourishments for the HSDR project with the use of a new offshore borrow area and using a turtle friendly beach nourishment construction template. The document is to be approved at the MSC level, and Congressional Authorization is not required. The separate SEIS for the new borrow area is the NEPA documentation being prepared along with the document.

b. Study/Project Description.

The Martin County Beach Erosion Control Project, a single-purpose project, was authorized by the Water Resource Development Act (WRDA) of 1990 (Public Law 101-640) in accordance with the Chief of Engineers Report dated 20 November 1989. This report authorized 942,000 cubic yards (cy) of beach fill to be placed on 4 miles of shorefront southward from the St. Lucie County line to near the limit of Stuart Public Park (Florida Department of Environmental Protection, FDEP, monuments R1 – R25). The project purpose is Hurricane and Storm Damage Reduction. Initial construction was completed in 1996. In the summer of 2000 six acres of nearshore artificial reef was created to mitigate for impacts to nearshore hardbottom in the project area. Partial nourishments were constructed in 2001 and 2002. The project was fully nourished in 2005 using Flood Control and Coastal Emergencies (FCCE) funds due to 2004 hurricane impacts. The LRR-estimated costs for the 2012 nourishment using a new borrow area and refined beach nourishment construction template is \$9.7 million. The benefit to cost ratio (BCR) for the remaining nourishments in the period of

Federal participation is 18 to 1. The previous BCR from the economic analysis contained in the 1994 General Design Memorandum (GDM) was 5 to 1. The non-Federal sponsor is the Martin County Board of County Commissioners.



c. Factors Affecting the Scope and Level of Review.

This section discusses 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. Factors affecting the risk informed decisions on the appropriate scope and level of review include the following:

- 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.);*
 There are no challenging aspects of this study. This project has been successfully constructed, has undergone periodic nourishment, and has provided significant hurricane and storm damage reduction benefits to Martin County and the Nation. Essentially, the project remains the same as the authorized project with the exception of the use of a new borrow area due to the previously used borrow area being depleted. The beach nourishment construction template will be refined to improve nesting conditions for sea turtles and beach users, but there is no significant change to the design berm. The purpose of the LRR is to demonstrate that the project remains justified using the new borrow area for remaining periodic nourishment.
- 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);*
 There are no additional risks to the project based on the changes documented in the subject LRR and SEIS. There are minimal risks to project performance associated with using the new borrow area as the material in it and resources in the vicinity have been studied in great detail. The new construction template adds no significant risk to project performance as the same volume of sand to be used and there is essentially no change to the equilibrated design berm on which benefits are based.
- If the project is likely to have significant economic, environmental, and/or social effects to the Nation (with some discussion as to why or why not and, if so, in what ways);*
 The project is not likely to have significant negative economic, environmental, or social effects to the Nation, and no additional effects will result from the changes proposed in the subject LRR. The project performance and benefits will be maintained just as they have been since initial construction. The decision to conduct a SEIS rather than an EA was based on the sponsors desire to pro-actively pursue detailed investigations to show that there are no additional environmental or social effects due to the project changes.
- 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.];*
 The project modifications proposed in the LRR, including the new borrow area and the refined; turtle friendly template would not add significant threat to human life/safety assurance.
- If the project/study is likely to have significant interagency interest (with some discussion as to why or why not and, if so, in what ways);*
 The project is not likely to have any significant interagency interest. The project is being coordinated with the appropriate agencies, and there is no objection to the project from any agencies.

- *If the project/study will be highly controversial (with some discussion as to why or why not and, if so, in what ways);*

The project and this study are not highly controversial. The project has been successfully in place since its initial construction in 1996. There are no reasons for the project using the new borrow area, or refining the beach nourishment construction template, to become controversial.

- *If the project report is likely to contain influential scientific information or be a highly influential scientific assessment (with some discussion as to why or why not and, if so, in what ways);*

The project report does not contain influential scientific information and is not a highly influential scientific assessment. The project report is to show that the project economics remain justified and provide NEPA documentation for the new borrow area.

- *If the information in the decision document or proposed project design will likely 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);*

The information in the decision document and proposed project design are not based on novel methods, do not use innovative materials or techniques do not present complex challenges ,are not precedent setting, and are not likely to change prevailing practices. The dredging techniques to be used for the new borrow area are the same as those used commonly in other constructed beach fill projects. The construction methods and equipment used for beach placement will be the same as those used on this project in the past. The theory behind the design of turtle friendly construction profile has been studied, developed, and recommended for use by environmental agencies and contractors for over ten years. The construction template does not change the design profile on which project benefits are based.

- *if the proposed project design will require redundancy, resiliency, and/or robustness (with some discussion as to why or why not and, if so, in what ways – see EC 1165-2-209, Appendix E, Paragraph 2 for more information about redundancy, resiliency, and robustness); and*

The proposed project design does not require any additional redundancy, resilience, or robustness. Beach fill projects for HSDR purposes such as this one are redundant in that periodic nourishments are included as part of the project plan when the beach becomes in need of sand to increase reliability. The project is resilient in that beach naturally recovers to some extent after storms, and emergency nourishment may be implemented to restore projects should a natural disaster adversely impact the project. This was the case for this particular project following the historic 2004 hurricane season. Beach nourishment projects such as this one are robust because by adding sand to the natural system, damages are reduced in a way that allows the naturally dynamic beach to adjust to the ever- changing coastal environment.

- *if the proposed project has 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).*

The construction sequencing for this project is unique only in that construction must be completed, including mobilization and demobilization, between November 1st and May 1st due to turtle nesting.

- d. **In-Kind Contributions.** Products and analyses provided by non-Federal sponsors as in-kind services are subject to DQC, ATR, and IEPR. The in-kind products and analyses to be provided by the non-Federal sponsor include:

There are no products or analyses provided by the non-Federal sponsor for this document.

4. DISTRICT QUALITY CONTROL (DQC)

a. Documentation of DQC.

District Quality Control of the draft LRR and SEIS was conducted at the PDT level where each of the team members reviewed the documents for accuracy. The document was also reviewed by the SAJ Chief of Coastal/Navigation Planning Section.

A DQC quality checks review of the final documents will be conducted by SAJ personnel using personnel from the disciplines of planning/economics, environmental, and engineering who did not perform the original work (EC 1165-2-209, ¶ 8(b)(1)).

b. Products to Undergo DQC.

The subject draft and final LRR and SEIS underwent DQC PDT review on 15 Sept 2010 and 7 April 2011 respectively.

The final documents will undergo a DQC quality checks review conducted using SAJ personnel in the disciplines of planning/economics, environmental, and engineering who did not perform the original work (EC 1165-2-209, ¶ 8(b)(1)).

5. AGENCY TECHNICAL REVIEW (ATR)

a. Products to Undergo ATR.

ATR of the subject Draft LRR and SEIS was conducted by a review team at Wilmington District per the guidance of SAD. This ATR was completed on 9 April 2010.

ATR of the final LRR and SEIS will be accomplished using a lead reviewer from outside the MSC, in this case, the PCX for Coastal Storm Damage Reduction (the lead from the PCX may opt to designate the original ATR team from SAW to perform the ATR).

b. Required ATR Team Expertise.

The ATR team from Wilmington District included team expertise in the disciplines of Ecosystem Restoration and NEPA Compliance, Cost Engineering, Economics, Plan Formulation, and Coastal-Hydraulic Engineering. The ATR team and their expertise are outlined in the table below.

Additionally, reviewer biographies with more details on their expertise are provided as Attachment 1. A new team leader from outside of SAD will need to be assigned for the ATR of the final documents in order to meet EC 1165-2-209 requirement.

ATR Team Members/Disciplines	Expertise
ATR Lead / Planning	The ATR lead should be outside of SAD and from the PCX. They should be a senior water resources planner with experience in HSDR projects and associated civil works decision documents. The lead should also have the necessary skills to and experience to lead a virtual team through the ATR process.
Frank E. Snipes, Jr., SAW Economics	Forty years experience with the Corps of engineers, most recently including the following: Developed structure databases for Caswell Beach, Oak Island, Holden Beach in Brunswick County,

	NC. Developed structure databases and analysis of hurricane and storm damages for Topsail Beach, Surf City, and North Topsail Beach in Pender and Onslow counties.
Chuck Wilson, SAW Environmental Resources	Ecosystem Restoration Coordinator (GS-12 Biologist), for the Environmental Resources Section, Wilmington District - Corps of Engineers. He has 28 years experience as a Corps Biologist, with 14 years specialized experience in coastal ecosystem restoration.
Mike Wutkowski, P.E., SAW Hydraulic/Coastal Engineering	Professional Engineer #11328 NC, 1983. Expertise includes: Breach closures, storm damage reduction studies, beach fill design, navigation channel impacts on adjacent beaches, breakwater design, groin design, revetment design, deep draft navigation, sedimentation, and circulation studies. Performed hydrologic and hydraulic studies. Developed the computer programs COSTDAM and GRANDUC, which analyze beach nourishment projects.
James Henderson, SAW Cost Engineering	Currently assigned to SAC. At the time of this ATR served as Regional Technical Specialist for dredging projects (GS-0810 -13, Engineer) for the Wilmington Regional Engineering Center. Assignments involve work in a broad range of specialized activities related to cost engineering functions pertaining to pipeline, hopper, and mechanical dredging. Projects consisted of maintenance, new work/construction, and beach nourishment projects as well as projects that utilized drilling and blasting of hard materials before being excavated.

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 DrChecks 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 DrChecks 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)

- a. **Decision on IEPR.** *This section should document the risk informed decision on whether IEPR (Type I, Type II, both or neither) will or will not be conducted for the decision document and, if appropriate, follow-on project implementation. The decision should be based on the criteria in EC 1165-2-209 and the discussion in Section 3 – Factors Affecting the Scope and Level of Review. If an exclusion to Type I IEPR is being requested, the basis for and status of the exclusion should be discussed. Furthermore, the recommendation must make the case that the study is so limited in scope or impact that it would not significantly benefit from Type I IEPR. If Type II IEPR is not considered appropriate, the basis for this decision should also be discussed. The risk informed decision should explicitly consider:*
- . HQUSACE (CECW-SAD) has confirmed that, absent project reformulation, this report is not subject to IEPR (see discussion, below). Therefore, Type I IEPR is not proposed for this project. On a risk-informed basis, Type II IEPR is not currently contemplated. However, the decision as to whether or not to perform Type II IEPR may be revisited in a follow-on implementation phase review plan. The risk informed decision for recommending that Type I IEPR not be performed explicitly considers the following:

- *If the decision document meets the mandatory triggers for Type I IEPR described in Paragraph 11.d.(1) and Appendix D of EC 1165-2-209; and if it doesn't, then also:*
 - *the consequences of non-performance on project economics, the environmental and social well-being (public safety and social justice);*

The project has performed well in the past and the consequences of non-performance are likely to be insignificant. The LRR-proposed changes would increase neither risk of non-performance, nor potential consequences.

- whether the product is likely to contain influential scientific information or be highly influential scientific assessment; and

The subject documents do not contain influential scientific information nor are they highly influential scientific assessments.

- if and how the decision document meets any of the possible exclusions described in Paragraph 11.d.(3) and Appendix D of EC 1165-2-209.

Appendix D of Engineering Circular 1165-2-209 dated 31 January 2010 lists the factors that trigger the requirement of Independent External Peer Review (IEPR). The detail provided below describe how the subject documents and project address these factors.

- (1) Significant threat to human life. The proposed modifications to the Martin County Hurricane and Storm Damage Reduction Project pose no threat to human life. This authorized 4 mile project was initially constructed in 1996 and fully renourished in 2005. There is no change to the size of the project with respect to the volume of sand being placed on the beach or the project footprint. The only change is in the location of the Borrow Area and refinement of the beach nourishment construction template. These changes do not result in any significant threat to human life.
- (2) Total Project cost greater than \$45 million. The total costs for the remaining nourishments are estimated at \$ 28.6 million. With the proposed modifications this project will still have the same benefits as it always has. The project cost for the remaining periodic nourishments has increased some due to the new proposed borrow area being further offshore, however the costs remains under the 902 limit. With the proposed modifications to the project, the BCR for the remaining project period of Federal participation at the current interest rate is 18 to 1 compared to the previous BCR of 5 to 1.
- (3) Request by the State Governor. There has been no request for IEPR by the Governor of Florida.
- (4) Request by the head of a Federal or state agency. There has been no request for IEPR by any Federal or state Agency.
- (5) Significant public dispute as to the size, nature or effects of the project. There is no significant public dispute as to the size, nature or effects of the project. The local sponsor for the project supported conducting an SEIS for the new borrow area rather than an EA in order to proactively address any potential environmental impacts or public concerns to the fullest extent. Detailed investigations including geotechnical analyses, wave modeling, and dive surveys have shown that use of the proposed new borrow area will provide quality sand for beach placement and will not have significant impacts to resources in the area. This authorized 4 mile project was initially constructed in 1996 and fully renourished in 2005. There is no change to the size of the project with respect to the volume of sand being placed on the beach or the project footprint. In the summer of 2000, six acres of nearshore artificial reef was created to mitigate for impacts to nearshore hardbottom in the project area. The fill placed for the proposed turtle friendly construction template will remain within the same equilibrium toe of fill as that of the traditional construction template, so there will be no additional impacts to the beach fill placement area. Again, this is just a change to the Construction Template and not a change to the Design Berm.

- (6) Significant public dispute as to the economic or environmental cost or benefit of the project. There is no significant public dispute as to the economic or environmental cost or benefit of the project. The economic benefits for this type of project are claimed for reducing storm damages to infrastructure and incidental recreation. With the proposed modifications this project will still have the same benefits as it always has. The project cost for the remaining periodic nourishments has increased some due to the new proposed borrow area being further offshore, however the costs remain under the 902 limit. With the proposed modifications to the project, the BCR for the remaining project period of Federal participation at the current interest rate is 18 to 1.
- (7) Information is 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. The proposed project modifications are minor in scope and are not based on novel methods or models. The project will serve the same purposes as it has in the past, with the only differences being the location of the borrow area and a slightly altered construction template. There are no changes to the Design Berm.
- (8) Any other circumstance where the Chief of Engineers determines Type I IEPR is warranted. The Chief of Engineers has not made a determination that Type I IEPR is warranted. The LRR and SEIS documenting the changes to the project are to be approved at the Division level. Conducting an IEPR on the subject documents would add significant costs and time with little added quality to the product.

- The status of any request to conduct IEPR from a head of a Federal or state agency charged with reviewing the project, if applicable; and
There has been no request from a head of any Federal or state agency charged with reviewing the project.
- If the proposed project meets the criteria for conducting Type II IEPR described in Paragraph 2 of Appendix D of EC 1165-2-209, including:
 - if the Federal action is justified by life safety or failure of the project would pose a significant threat to human life;
This project is not intended to benefit life safety, nor does it pose a significant threat to human life.
 - if the project involves the use of innovative materials or techniques where the engineering is based on novel methods, presents complex challenges for interpretations, contains precedent-setting methods or models, or presents conclusions that are likely to change prevailing practices;
The information in the decision document and proposed project design are not based on novel methods, do not use innovative materials or techniques do not present complex challenges ,are not precedent setting, and are not likely to change prevailing practices. The dredging techniques to be used for the new borrow area are the same as those used commonly in other constructed beach nourishment projects. The construction methods and equipment used for beach placement will be the same as those used on this project in the past. The theory behind the design of turtle friendly construction profile has been studied, developed, and recommended for use by environmental agencies and contractors for over ten years. The construction template does not change the design profile on which project benefits are based.
 - if the project design requires redundancy, resiliency, and/or robustness; and/or
The proposed project design does not require any additional redundancy, resilience, or robustness. Beach fill projects for HSDR purposes such as this one are redundant in that

periodic nourishments are included as part of the project plan when the beach becomes in need of sand to increase reliability. The project is resilient in that beach naturally recovers to some extent after storms, and emergency nourishment may be implemented to restore projects should a natural disaster adversely impact the project. This was the case for this particular project following the historic 2004 hurricane season. Beach fill projects such as this one are robust because by adding sand to the natural system, damages are reduced in a way that allows the naturally dynamic beach to adjust to the ever- changing coastal environment.

- if the project has unique construction sequencing or a reduced or overlapping design construction schedule.

The construction sequencing for this project is unique only in that construction must be completed, including mobilization and demobilization, between November 1st and May 1st due to turtle nesting.

By 5 November 2010 Memorandum, SAD endorsed to HQUSACE SAJ's request for an exclusion from Type I IEPR. By 15 February 2011 CECW-SAD Memorandum, HQUSACE confirmed that identifying a new borrow source for the periodic nourishment, verifying the economics of the remaining periodic nourishment in light of a new offshore borrow area and revised construction template and updating the project's NEPA document would not be subject to IEPR provided that these actions did not "result in the need to reformulate the project such that a modification of the authority is required." SAJ reiterates, and SAD concurs that identification and evaluation of a new borrow source for an existing hurricane and storm damage reduction project is a modest change in project scope not requiring reformulation.

b. Products to Undergo Type I IEPR.

Not-Applicable

c. Required Type I IEPR Panel Expertise.

Not-Applicable

Documentation of Type I IEPR.

Not-Applicable

7. MODEL CERTIFICATION AND APPROVAL

a. Planning Models.

There were no planning models used for the development of the subject decision document. There are no significant changes to the authorized plan.

b. Engineering Models.

There were no engineering models used in the development of the decision document.

8. REVIEW SCHEDULES AND COSTS

a. ATR Schedule and Cost.

Agency Technical Review was completed on April 9, 2010. The approximate cost was \$20,000. The MCACES cost estimate developed for the subject LRR was included in the ATR performed by SAW. Additionally a Cost Risk Schedule Analysis (CRSA) and Cost Engineering Directory of Expertise (DX)

certification is currently being pursued. The total cost level triggering these actions was reduced from \$40 million to \$10 million in the time that the draft report was sent to SAD for review making them requirements for this report. The CRSA has been completed and certification from the Cost Center of Expertise is anticipated.

The ATR of the final documents will need to take place before SAD approval of the documents can happen. The ATR of the final documents will cost approximately \$10,000 and take approximately 2 weeks.

b. Type I IEPR Schedule and Cost.

Exclusion request pending.

c. Model Certification/Approval Schedule and Cost.

Not-Applicable. No models need certification or approval for the development of this decision document.

9. PUBLIC PARTICIPATION

A public workshop will be held in Martin County following the first notice of availability (NOA) and public release of the Draft LRR and SEIS. This venue will present an opportunity for public comment on the development of the decision document. Public Comments will be appropriately incorporated into the decision document along with the supporting NEPA document, and a second NOA will release the document for a second chance to review the document. The comments and appropriate revisions to the subject documents will be provided to reviewers following the public review period. The final decision document will be made available to the public following approval at the MSC level.

10. REVIEW PLAN APPROVAL AND UPDATES

The South Atlantic Division Commander has primary responsibility for approving review plans; however, this authority has been delegated to the Chief, Planning Division. The SAD Planning Division Chief's approval reflects vertical team input (involving district, SAD, 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 SAD Planning Division Chief's approval should be documented in Attachment 3. Significant changes to the Review Plan (such as changes to the scope and/or level of review) should be re-approved by the SAD Planning Division Chief following the process used for initially approving the plan. The latest version of the Review Plan, along with the SAD Planning Division Chief's approval memorandum, should be posted on the Home District's webpage. The latest Review Plan should also be provided to the RMO.

11. 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)232-2190
RMO, South Atlantic Division, POC (404)562-5226*

ATTACHMENT 1: TEAM ROSTERS

PROJECT DELIVERY TEAM (PDT) ROSTER

Deleted for public posting.

AGENCY TECHNICAL REVIEW (ATR) TEAM

Deleted for public posting.

ATTACHMENT 2: SAMPLE STATEMENT OF TECHNICAL REVIEW FOR DECISION 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 DrCheckssm.

SIGNATURE _____ Date _____
Name
ATR Team Leader
Office Symbol/Company

SIGNATURE _____ Date _____
Name
Project Manager
Office Symbol

SIGNATURE _____ Date _____
Name
Architect Engineer Project Manager¹
Company, location

SIGNATURE _____ Date _____
Name
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 _____ Date _____
Name
Chief, Engineering Division
Office Symbol

SIGNATURE _____ Date _____
Name
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
AFB	Alternative Formulation Briefing	NED	National Economic Development
ASA(CW)	Assistant Secretary of the Army for Civil Works	NER	National Ecosystem Restoration
ATR	Agency Technical Review	NEPA	National Environmental Policy Act
CSDR	Coastal Storm Damage Reduction	O&M	Operation and maintenance
DPR	Detailed Project Report	OMB	Office and Management and Budget
DQC	District Quality Control/Quality Assurance	OMRR&R	Operation, Maintenance, Repair, Replacement and Rehabilitation
DX	Directory of Expertise	OEO	Outside Eligible Organization
EA	Environmental Assessment	OSE	Other Social Effects
EC	Engineer Circular	PCX	Planning Center of Expertise
EIS	Environmental Impact Statement	PDT	Project Delivery Team
EO	Executive Order	PAC	Post Authorization Change
ER	Ecosystem Restoration	PMP	Project Management Plan
FDR	Flood Damage Reduction	PL	Public Law
FEMA	Federal Emergency Management Agency	QMP	Quality Management Plan
FRM	Flood Risk Management	QA	Quality Assurance
FSM	Feasibility Scoping Meeting	QC	Quality Control
GRR	General Reevaluation Report	RED	Regional Economic Development
HQUSACE	Headquarters, U.S. Army Corps of Engineers	RMC	Risk Management Center
IEPR	Independent External Peer Review	RMO	Review Management Organization
ITR	Independent Technical Review	RTS	Regional Technical Specialist
LRR	Limited Reevaluation Report	SAD	South Atlantic Division
MSC	Major Subordinate Command	SAR	Safety Assurance Review
		USACE	U.S. Army Corps of Engineers
		WRDA	Water Resources Development Act