

REVIEW PLAN

**Picayune Strand Restoration, Florida, Project Section 902 (WRDA 1986)
Considerations
Post Authorization Change Limited Reevaluation Report**

Jacksonville District

December 2012

MSC Approval Date: *12/14/12*
Last Revision Date: *None*



**US Army Corps
of Engineers®**

REVIEW PLAN

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1. PURPOSE AND REQUIREMENTS

a. **Purpose.** This Review Plan defines the scope and level of peer review for the Picayune Strand, Florida, Restoration Project Section 902 (WRDA 1986) Considerations Post Authorization Change Limited Reevaluation Report and Environmental Assessment (Picayune LRR/EA).

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 2011
- (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) Project Management Plan, Picayune Strand Restoration Project, August 2011
- (6) Final Project Implementation Report and EIS, Picayune Strand Restoration, September 2004.

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 the Center of Expertise for Water Management and Reallocation Studies(WMRS-PCX). Picayune Strand is a single-purpose ecosystem restoration project. However, restoration is not at issue, with respect to the Picayune LRR. Rather, the LRR addresses an increase in the estimated total project cost . The WMRS-PCX will verify agreement with the National Ecosystem Restoration Center of Expertise (ECO-PCX).

The RMO 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 Picayune Strand, Florida, Restoration Project Section 902 (WRDA) Considerations Post Authorization Change Limited Reevaluation Report, to be prepared in accordance with ER 1105-2-100, Sections 4-1 and 4-5, dated 22 Apr 2000, and Appendix G of ER 1105-2-100, dated 30 Jun 2004, will document increases in total project costs. A review of the guidance cited above confirms that an LRR is the appropriate reporting instrument as there is no

reformulation or changes to the project purpose proposed. Evolving engineering standards since the project authorization have increased the cost to construct above the previous authorization limit. The level of report approval is at Headquarters USACE. The report will consist of an integrated LRR and EA (Environmental Assessment).

The Environmental Assessment (EA) portion of the LRR will address components which were included as part of the PSRP following the 2004 Final PIR/EIS. These components are considered refinements of the original design, and are located within the authorized project limits. The modified components discussed in the EA are the tieback levees for the Merritt, Faka Union, and Miller Pump Stations and the manatee mitigation feature at the Faka Union canal, north of Port of the Island). The original requirement for these components was established in the 2004 Final PIR/EIS as part of the PSRP and proposed modifications are needed to fulfill project requirements envisioned in the 2004 Final PIR/EIS.

- b. Study/Project Description.** The Picayune Strand Restoration Project (PSRP) encompasses approximately 55,000 acres (241 km² or 23,995 hectares) in Collier County, southwest Florida, between Interstate 75 (I-75) and U.S. Highway 41.

The PSRP is an area of sensitive environmental land located in southwestern Collier County, Florida. It is located southwest of the Florida Panther National Wildlife Refuge, north of the Ten Thousand Islands National Wildlife Refuge, east of the South Bell Meade State Conservation and Recreation Lands (CARL) Project, west of the Fakahatchee Strand State Preserve, and northeast of Collier-Seminole State Park. The South Bell Meade Carl Project, known simply as “Belle Meade”, and the Picayune Strand Restoration Project have been combined by the State of Florida to form the Picayune Strand State Forest.

The PSRP (Figure 1) received authorization under the Water Resources Development Act of 2007. The September 15, 2005, Chief of Engineers Report specified a total cost of \$375,330,000 with an estimated federal cost of \$187,665,000 and an estimated non-federal cost of \$187,665,000 (2007 FY Price Levels). The project’s Section 902 cost limit estimate is \$504M (2013 FY Price Level). The current fully funded cost estimate is \$644M yielding an estimated cost exceedance of \$140M. Contributing to the projected increase are principally evolving engineering design standards requiring the construction of more robust pump stations and more stringent standards for associated levees and related structures and the addition of an endangered species protection component

The recommended plan for the PSRP is to remove the infrastructure of the subdivision and restore its pre-drainage hydrology and ecology, generating positive effects on the hydrology, vegetation and wildlife of the project area and surrounding public lands. The plan calls for the construction of a series of pump stations, tie-back levees, spreader berms and canal plugs to slow water flowing through existing canals and redistribute it across the landscape. Components of the project include the following:

- Installation of culverts under US-41 to the south;
- Degrading of the existing roadways and filling of the side swales;
- Plugging of the existing canals, including the Prairie, Merritt, Miller and Faka Union Canals;
- Construction of three pump stations (Merritt, Faka Union, and Miller) to replace the conveyance of the respective canals;
- Construction of Spreader berms and tie-back levees; and

- Construction of protection features which includes, but is not limited to, tie-back levees and berms.

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. The following factors were considered:*

- *If parts of the study will likely be challenging:* No, while the LRR/EA is intended to document increased costs principally for required design refinements of project components already authorized, there are two project modifications; a full project width tie back levee and a manatee mitigation feature. These components are necessary to achieve the promised project benefits and are not anticipated to create any significant project risk.
- *A preliminary assessment of where the project risks are likely to occur and what the magnitude of those risks might be:* The LRR requests an authorization for an increase in cost so the risks discussed will be associated with further cost increases. Because the project is more than half constructed with a construction complete date of 2017, the risks of an increase in cost are very low. The life/safety risks for the authorized project have been assessed and it was determined that the level of water associated with the project features does not create an adverse condition for life safety. The primary rationale for the levee system is to train the water in a southerly direction and to minimize any outflanking effects that might otherwise be experienced on adjacent lands. The pump stations that are being designed/constructed have redundant pumps proposed to allow for uninterrupted operation, repair, and replacement without losing the required capacity to maintain the current flood protection for the neighboring properties. Any design refinements associated with the requested increase in the 902 limit were due to more stringent regulations and standards which will actually reduce project risks.
- *If the project will likely be justified by life safety or if the project likely involves significant threat to human life/safety assurance :* The currently authorized plan for the PSRP is designed to restore pre-drainage hydrology and ecology in the area for positive effects on the hydrology, vegetation and wildlife of the project area and surrounding public lands. The Jacksonville District has not identified any concerns with respect to life safety since the level of water associated with the project features would not create an adverse condition for life safety. The requested increase in the 902 limit will not be justified by, or add a significant risk to, human life or safety.
- *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, nor is such a request expected.
- *If the project/study is likely to involve significant public dispute as to the size, nature, or effects of the project:* During the development of the project, a thorough and extensive public involvement process was conducted (see Sec 10 of the PIR for details), successfully addressing and resolving public concerns. Additionally there will be another NEPA public review of the document to address the proposed project changes discussed above. Because these changes

are minor with respect to the scope of the project and contribute greatly to achieving the benefits desired, we do not anticipate this action will invoke any public dispute.”

- *If the project/study is likely to involve significant public dispute as to the economic or environmental cost or benefit of the project:* The proposed action is not expected to result in any public dispute related to the economic or environmental cost or benefit of the project.
- *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:* No. The requested increase in the 902 limit will be based upon design refinements due to changes in State specifications and engineering regulations, modifications resulting from more detailed field data, and engineering and design refinements.
- *If the project design is anticipated to require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design construction schedule:* This project’s principal function is to restore the hydrology to a stressed ecosystem while ensuring that existing flood risk management protection levels are not reduced. The pump stations that are being designed/constructed have redundant pumps proposed to allow for uninterrupted operation, repair, and replacement without losing the required capacity to maintain the current flood protection for the neighboring properties. Additionally, there is diesel generated backup power in the event of a loss of electricity. The pump stations can be controlled via on-site personnel or from the command center of the South Florida Water Management District in West Palm Beach, FL. The design and construction of the facilities was performed in anticipation of adverse conditions that can arise in South Florida. The buildings have been designed to withstand hurricane force winds up to 140 mph at a reoccurrence level of 200 years. This does not change the current assessment of the lack of a need for Type II IEPR as stated in the approved implementation review plan.

d. In-Kind Contributions. Products and analyses provided by non-Federal sponsors as in-kind services are subject to DQC, ATR, and IEPR. None.

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 home district shall manage DQC. Documentation of DQC activities is required.

a. Documentation of DQC. Internal District control of product quality will be accomplished by PDT and supervisory reviews of interim and final products. 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 and provided to the ATR Team for review.

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.** It is currently anticipated that ATR would be conducted on the integrated draft LRR/EA. The ATR on the draft report is anticipated to be comprehensive.
- b. **Required ATR Team Expertise.** ATR members will be identified by the WMRS-PCX from the following sources outside Jacksonville District: regional technical specialists (RTS); appointed subject matter experts (SME) from other districts; senior level experts from other districts; Center of Expertise staff; experts from other USACE Commands, or a combination of the above. The ATR Team will be comprised of the following disciplines and possess prescribed knowledge, skills, abilities, and experience levels.

ATR Team Members/Disciplines	Expertise Required
ATR Lead	The ATR lead will be a senior professional from outside the home MSC 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	Plan formulation reviewer will be familiar with the requirements of reporting requirements for post authorization change reports.
Economics	The reviewer will be a senior economist experienced in recalculating the benefits and costs of an ecosystem restoration project.
NEPA Compliance	The reviewer will be a senior environmental resources specialist with experience in preparing NEPA documentation.
Hydraulic Engineering	The team member will be a registered professional engineer and have 10 or more years experience in hydraulic engineering. Experience needs to include the retention and evaluation of flow through water management structures.
Civil Engineering	The team member will be a registered professional engineer and have 10 or more years experience in civil engineering. Experience needs to include the engineering and design of water management project features such as levees and water control structures.
Mechanical Engineering	The team member will be a registered professional engineer and have 10 or more years of experience in mechanical engineering. Experience needs to include the engineering and design of water

	management project features such as water control structures and pump stations.
Cost Engineering	The Cost Engineering DX will determine the appropriate expertise.

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 been 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 will be completed, based on work reviewed to date, for the draft report and final report. A sample Statement of Technical Review is included in Attachment 2.

6. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)

Any work product that undergoes DQC and ATR may be required to undergo IEPR under certain circumstances. 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 purpose of the Picayune LRR is to request an increase in the 902 limit, based upon required design refinements made during PED. The total LRR/EA-estimated increase in project cost is \$140M. While the LRR/EA does not include any significant reformulation and the proposals in the LRR/EA do not add any new risk elements or increase any risks inherent to the authorized project, the magnitude of the projected cost increase could be viewed as significant. In consideration of these cost differences and the Risk Factors described in Section 3.c. a decision was made that Type I IEPR will be conducted.

As stated in paragraph 3.c above, “The pump stations that are being designed/constructed have redundant pumps proposed to allow for interrupted operation and repair and replacement without losing the required capacity.” The redundancy is not required to address life safety concerns. As well, the existing implementation review plan concluded that Type II IEPR is not required. The MSC,

in approving the implementation review plan, stated that the primary basis for concurrence that a Type II IEPR is not required is the determination that no life safety concerns have been identified since the level of water associated with the project features will not create an adverse condition for life safety. The implementation review plan may be found at: http://www.saj.usace.army.mil/Divisions/Planning/DOCS/ReviewPlans/25Apr11_PicayuneStrandReviewPlanW-ApprovalMemo.pdf. None of the risk informed criteria or statements addressing how the risk informed criteria applies to the Picayune Strand Restoration Project discussed in the Implementation Review Plan paragraph 5.c are altered by the changes associated with the increase in cost addressed by the Section 902 Picayune LRR. Therefore, no Type II IEPR of this the Section 902 Picayune LRR is recommended/needed.

- b. Products to Undergo Type I IEPR.** The integrated LRR and EA (Environmental Assessment).
- c. Required Type I IEPR Panel Expertise.** Each panel member should be a professional from academia, a public agency, consulting firm, or similar vocation demonstrated experience in his/her area of expertise. Panel members should be familiar with large, complex civil works projects with high public and interagency interests. Descriptions of required expertise are provided in the following table.

IEPR Panel Members/Disciplines	Expertise Required
Planning	The Planner Panel Member will be a professional from academia, a public agency or an Architect-Engineer or Consulting Firm with a minimum 10 years demonstrated experience in evaluating and conducting complex multi-objective public works projects with competing trade-offs. Experience should encompass projects with high public and interagency interests and may have nearby project impacted sensitive habitats.
Economics	The Economic Panel Member will be a professional from academia, a public agency or an Architect-Engineer or Consulting Firm with a minimum of 10 years demonstrated experience in evaluating ecosystem restoration project benefits and costs and identifying incidental benefits (preferably flood risk management and water supply).
Environmental/Ecological Evaluation	The Ecological Evaluations Panel Member will be a scientist from academia, public agency, non-governmental entity, or an Architect-Engineer or Consulting Firm with a minimum 10 years demonstrated experience in evaluating and conducting ecological evaluations for complex multi-objective public works projects with competing trade-offs. Experience should encompass projects with high public and interagency interests and may have nearby project impacted sensitive habitats.
Hydraulic Engineer	Hydraulic Engineering Panel Member will be from academia, public agency or an Architect-Engineer or Consulting Firm with a minimum 10 years demonstrated experience in hydraulic engineering. Active participation in related professional societies is encouraged.
Geotechnical Engineer	The Geotechnical Panel Member will be a Professional Engineer

	from academia, a public agency, or an Architect-Engineer Consulting Firm with a minimum 10 years demonstrated experience in embankment design (i.e. slope stability, seepage evaluation, settlement analysis, and construction methods) for flood risk management and water storage, cut/fill operations, construction dewatering, and seepage control. Experience should also include geotechnical evaluation of flood risk management structures. Active participation in related professional societies is encouraged.
Mechanical Engineer	Mechanical Engineering Panel Member will be from academia, public agency or an Architect-Engineer or Consulting Firm with a minimum 10 years demonstrated experience in mechanical engineering. Active participation in related professional societies is encouraged.
Cost Engineer	Cost Engineering Panel Member will be from academia, public agency or an Architect-Engineer or Consulting Firm with a minimum 10 years demonstrated experience in preparing and evaluating cost estimates for complex engineering projects. Active participation in related professional societies is encouraged.

d. Documentation of Type I IEPR. 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 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. 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.** There are not expected to be any planning models used in the development of the PAC LRR\EA.
- b. Engineering Models.** The MikeShe model was used to determine the required footprint for the revised tieback levee for PSRP proposed in the PAC LRR\EA. The MikeShe was previously approved for use by USACE.

10. REVIEW SCHEDULES AND COSTS

- a. ATR Schedule and Cost.** ATR of the draft report is estimated to cost about \$40K. Review of the draft LRR is scheduled to commence in November 2012.
- b. Type I IEPR Schedule and Cost.** IEPR of the draft document is estimated to cost about \$150K. IEPR is expected to commence in January 2013.

c. **Model Certification/Approval Schedule and Cost.** Not applicable.

11. PUBLIC PARTICIPATION

The LRR/EA and proposed Finding of No Significant Impact will be made available to the public, tribes, Federal, and state agencies by Notice of Availability. Additionally, coordination with the Federal and State of Florida resource agencies under the Section 7 of the Endangered Species Act, will continue to ensure that the proposed refinements will not jeopardize the continued existence of any species listed as threatened or endangered in the vicinity of the authorized project.

12. REVIEW PLAN APPROVAL AND UPDATES

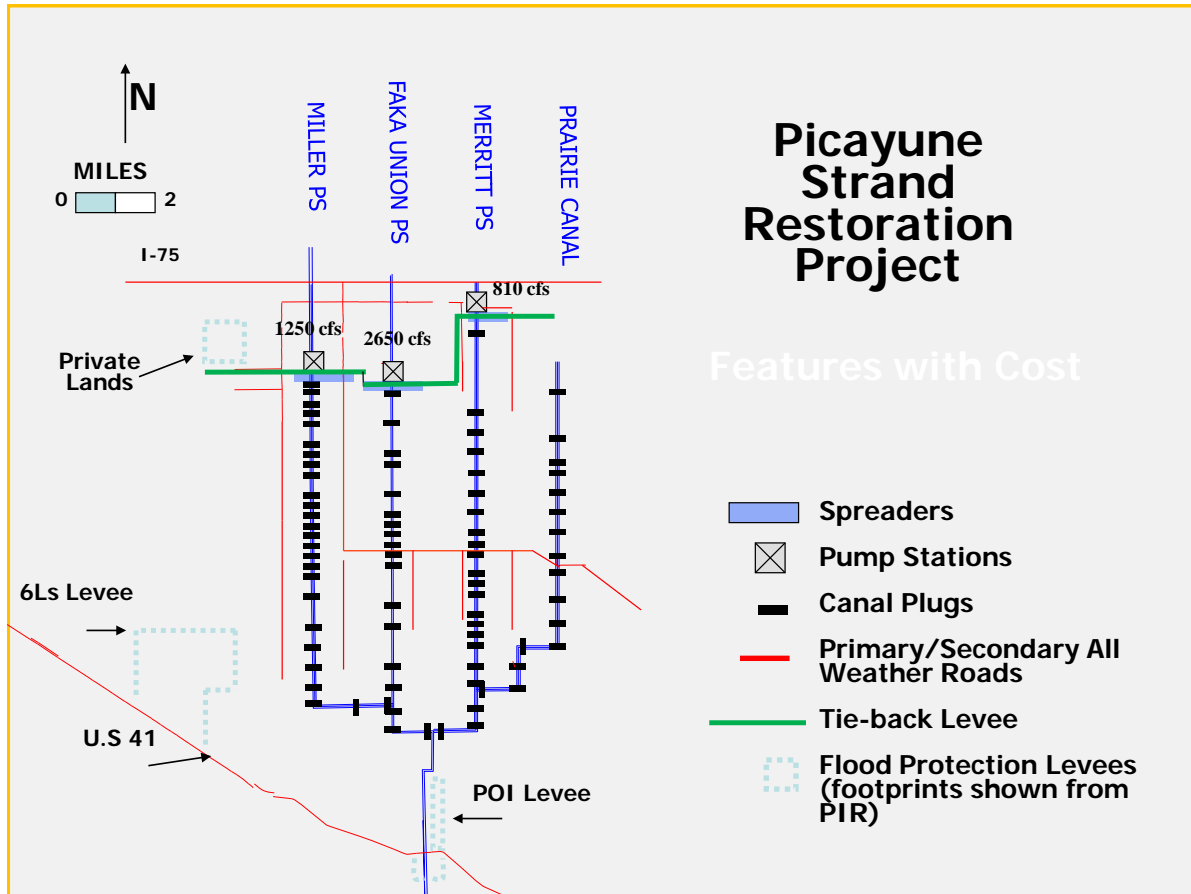
The South Atlantic Division Commander is responsible for approving this Review Plan. The Commander's approval reflects vertical team input (involving district, MSC, RMO, and HQUSACE members) as to the appropriate scope and level of review for the decision document. Like the PMP, the Review Plan is a 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) will 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, 904-232-1550
- South Atlantic Division Point of Contact, 404-562-5206
- WMRS-PCX Point of Contact, 469-487-7033

Figure 1: Picayune Strand Restoration Project



ATTACHMENT 1: TEAM ROSTERS

Team Roster intentionally removed.

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
5 Nov '12	Updated PDT listing	12
19 Nov '12	Accepted various editing revisions provided by SAD	Various
29 Nov '12	Updated Sections 1.B.5., 3.a., 3.b., 3.c., 5.b., 5.c., 6., 6.a, 10.a. and added Attachment 4.	Various
7 Dec '12	Updated Section 6 & 10 to reflect intent to conduct IEPR. Corrected Sec 11 to reflect planned public participation?	7 - 11

ATTACHMENT 4: ACRONYMS

ATR – Agency Technical Review
CARL – Conservation and Recreational Lands
DQC – District Quality Control
DX – Directory of Expertise
EA – Environmental Assessment
EC – Engineering Circular
ECO-PCX – National Ecosystem Restoration Center of Expertise
EDC – Engineering During Construction
ER – Engineer Regulation
ESA – Endangered Species Act
IEPR – Independent External Peer Review
HQUSACE – Headquarters, US Army Corps of Engineers
LRR – Limited Reevaluation Report
OEO - Outside Eligible Organization
OMRR&R – Operation, Maintenance, Repair, Replacement, and Rehabilitation
MSC – Major Subordinate Command
NEPA – National Environmental Policy Act
PAC – Post Authorization Change
PCX – Professional Center of Expertise
PDT – Project Delivery Team
PIR – Project Implementation Report
PMP – Project Management Plan
PSRP – Picayune Strand Restoration Project
RMC – Risk Management Center
RMO – Review Management Organization
SAR – Safety Assurance Review
SCADA – Supervisory Control and Data Acquisition
SET – Scientific and Engineering Technology Initiative
SFWMD – South Florida Water Management District
USACE – US Army Corps of Engineers
WRDA – Water Resources Development Act
WMRS-PCX – Center of Expertise, Water Management and Reallocation Studies