



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
SOUTH ATLANTIC DIVISION
60 FORSYTH STREET SW, ROOM 10M15
ATLANTA, GA 30303-8801

24 NOV 2014

CESAD-CG

MEMORANDUM FOR Commander, Jacksonville District (CESAS-PD/E. Bush)

SUBJECT: Upper St. Johns River, S252 Deficiencies Report – Request for Review Plan Approval

1. References:

- a. Memorandum, CESAJ-PD, 25 August 2014, subject as above.
- b. EC 1165-2-214, Civil Works Review, 15 December 2012.

2. The enclosed Review Plan has been prepared in accordance with Engineer Circular (EC) 1165-2-214. The Review Plan has been coordinated with the Water Management and Reallocation Studies Planning Center of Expertise (PCX) of the Southwestern Division (SWD), which is the lead office to execute this plan. For further information, please contact the PCX at (469) 487-7033. The Review Plan does not include Independent External Peer Review (IEPR). The South Atlantic Division endorsed the exclusion request for IEPR on 5 August 2014, and the IEPR Panel approved the request for IEPR exclusion on 26 August 2014.

3. Subject to receiving the official IEPR exclusion request approval memorandum from HQUSACE, I hereby approve this Review Plan, which is subject to change as circumstances require, consistent with study development under the Project Management Business Process. Subsequent significant revisions to this Review Plan or its execution will require new written approval from this office. The District shall post the approved Review Plan and a copy of this approval memorandum to the District public internet website and provide a link to SAD for our use. Before posting to the website, the names of Corps employees should be removed.

4. The point of contact for this action is Mr. Patrick O'Donnell at (404) 562-5226.

Encl
as

C. DAVID TURNER
Brigadier General, USA
Commanding

REVIEW PLAN

***Upper St. Johns River Basin Project
Modifications to Correct Deficiencies Report
Culvert Structures S-252D, S-252E and S-252F***

Jacksonville District

Project # 117413

**MSC Approval Date: 24 November 2014
Last Revision Date: None**



**US Army Corps
of Engineers ®**

REVIEW PLAN

***Upper St. Johns River Basin Project
Modifications to Correct Deficiencies Report
Culvert Structures S-252D, S-252E and S-252F***

TABLE OF CONTENTS

1. PURPOSE AND REQUIREMENTS..... 2

2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION 2

3. STUDY INFORMATION 3

4. DISTRICT QUALITY CONTROL (DQC) 8

5. AGENCY TECHNICAL REVIEW (ATR)..... 8

6. INDEPENDENT EXTERNAL PEER REVIEW (IEPR) 11

7. POLICY AND LEGAL COMPLIANCE REVIEW 14

**8. COST ENGINEERING AND ATR MANDATORY CENTER OF EXPERTISE (MCX)
REVIEW AND CERTIFICATION..... 14**

9. MODEL CERTIFICATION AND APPROVAL..... 14

10. REVIEW SCHEDULES AND COSTS 15

11. PUBLIC PARTICIPATION 15

12. REVIEW PLAN APPROVAL AND UPDATES..... 15

13. REVIEW PLAN POINTS OF CONTACT..... 16

ATTACHMENT 1: TEAM ROSTERS..... 17

**ATTACHMENT 2: SAMPLE STATEMENT OF TECHNICAL REVIEW FOR DECISION
DOCUMENTS 18**

ATTACHMENT 3: REVIEW PLAN REVISIONS 19

1. PURPOSE AND REQUIREMENTS

a. Purpose. This Review Plan defines the scope and level of peer review for the Modifications to Correct Deficiencies Report for The Upper St. Johns River Basin (USJRB) Project Culvert Structures S-252D, S252E and S-252F.

b. References

- (1) Engineering Circular (EC) 1165-2-214, Civil Works Review, 15 Dec 2012
- (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 (updated Sep 2006 and Mar 2011)
- (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
- (6) ER 1165-2-119, Modifications to Completed Projects, 20 Sep 1982, as amended

c. Requirements. This review plan was developed in accordance with EC 1165-2-214, 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 1165-2-214) and planning models are subject to certification/approval.

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 Water Management and Reallocation Studies Planning Center of Expertise (WMRS-PCX).

The RMO will coordinate with the Civil Works Cost Engineering and Agency Technical Review Mandatory Center of Expertise (MCX) with Technical Expertise (TCX) to ensure the appropriate expertise is included on the review teams to assess the quality of the review products, including the main report and appendices, and to assess the quality and competence of the cost estimates, construction schedules and contingencies.

3. STUDY INFORMATION

- a. **Decision Document.** The purpose of this report is to demonstrate (1) that there exists a deficiency in the "Federal design or construction that significantly interferes with the project authorized purpose or full usefulness as intend by Congress at the time of original project development"; (2) to determine if the work proposed to correct the design or construction deficiency is eligible for accomplishment under existing project authority by meeting items 1 through 5 of paragraph 7.a of ER 1165-2-119; (3) identify the alternatives evaluated as well as life cycle costs of the alternatives evaluated; (4) reason for selecting/recommending the selected alternative to correct the deficiency; and (5) provide adequate information and documentation concerning economics, cost, safety considerations as well as technical information to support the recommendations in the report and warrant recommendation to higher authority. This report will require South Atlantic Division (SAD) endorsement to Army Corps of Engineers Headquarters (HQUSACE). Additional Congressional authorization will not be required.
- b. **Study/Project Description.** The Upper St. Johns River Basin Project is part of the Central and Southern Florida Project. The Flood Control Act of 3 September 1954 contained in Public Law (PL) 780 (83rd Congress, 2nd Session) authorized the remainder of the Comprehensive Plan for Flood Control and other purposes for the Central and Southern Florida (C&SF) Project. This included flood control (now referred to as flood risk management), water conservation, and navigation in the Upper St. Johns and Kissimmee River Basins.

The Upper St. Johns River Basin Project is a comprehensive flood risk and water management project that encompasses a drainage area of about 2,000 square miles (**Figure 1**). The project structures being evaluated for possible design deficiency in this report are used for flood risk management and water transportation to reduce risk associated with flooding.

The L-78 structure extends west along State Road 60, with the Fort Drum Marsh Conservation Area (FDMCA) to the south and Blue Cypress Marsh Conservation Area (BCMCA) to the north. S-252E, S-252F, and L-78 provide water flow under normal conditions into the FDMCA whereas S-252D discharges water into the BCMCA due to its location in L-79 (**Figure 2**). Levee 78 allows for ponding of flood stages planned for the surrounding areas. Flood waters in the FDMCA are able to be properly held back to reduce stages in the downstream BCMCA. There are multiple developed and privately owned agricultural lands west of BCMCA. Levee 78 and the surrounding structures serve as the main flood risk management features for lands located to the north of the levee alignment.

Structure S-252D (single barrel gated culvert) was constructed in 1997 as part of the S-252 Flow-way and structure 252D contract. Structures S-252E (five barrel gated culvert), S-252F (two barrel gated structure) and L-78 access road culverts (two barrels) were constructed in 1998 as part of the Levee 78 contract. Structures S-252D, S-252E, and S-252F have experienced several problems that have the potential to affect their

ability to perform the objectives for which they were authorized and designed. The analysis for the Upper St. Johns River Basin Project Deficiencies Report will determine if the problems with the advanced corrosion of the structures are the result of a design deficiency, and if the problems pose an immediate and significant risk of failure. The design deficiency analysis will determine if action is required as an immediate modification risk reduction strategy, and if action is required to make the project function as initially intended.

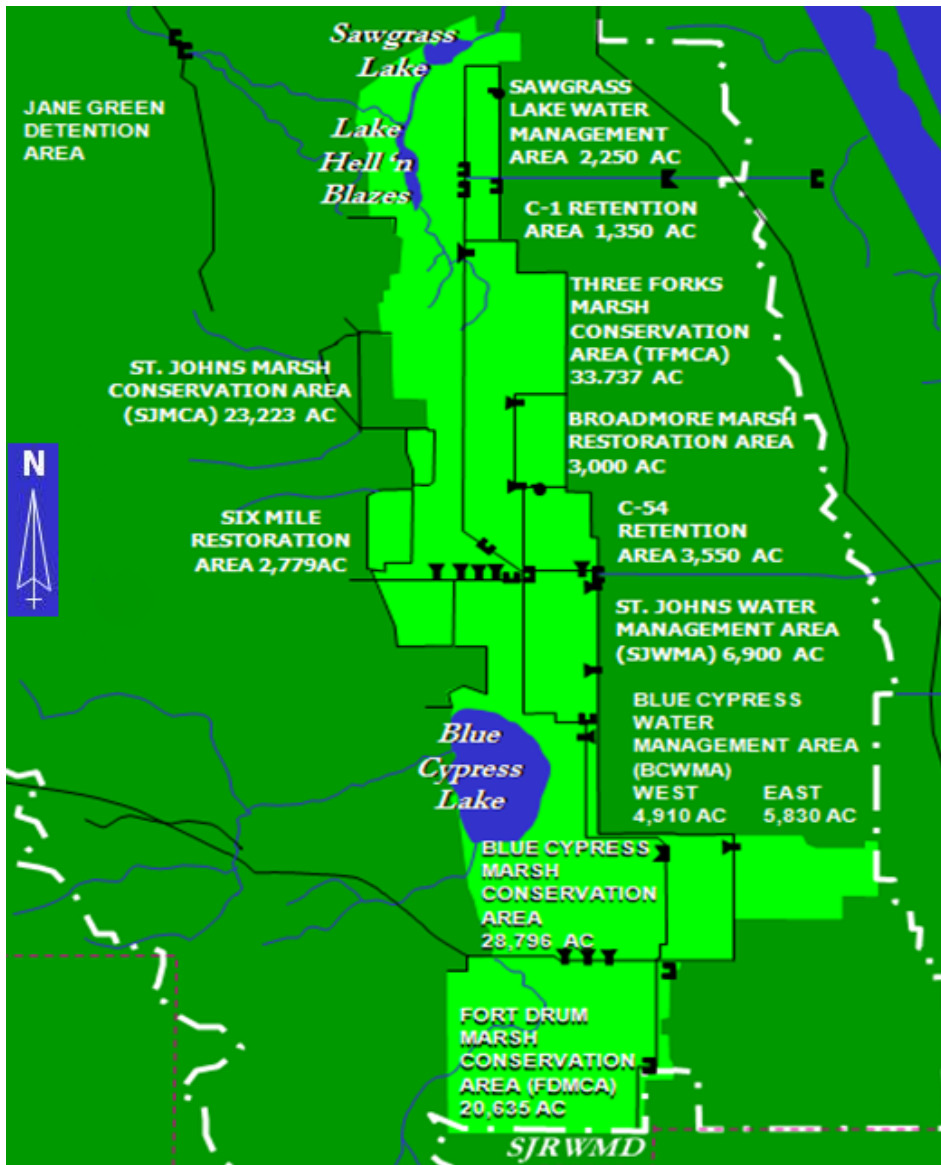


Figure 1: Upper St. Johns River Basin and Project Area.

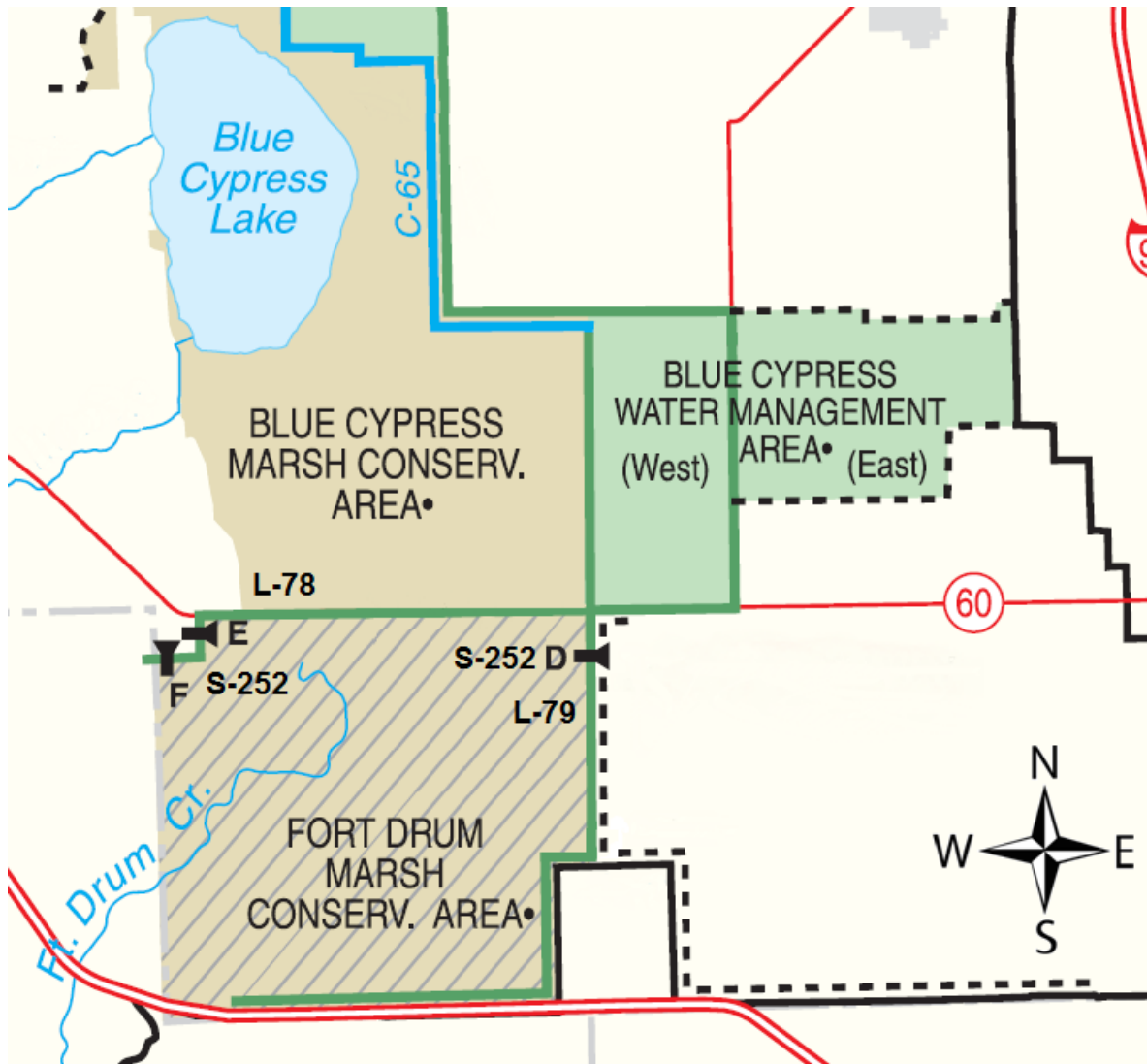


Figure 2: Location of S-252D, S-252E, and S-252F.

c. **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. Bulleted issues are addressed as follows:

- *If the project has a cost estimate of more than \$200 million:* The current cost estimate for the recommended modification to correct deficiencies is \$3,570,000, which is less than \$200 million.
- *If parts of the study will likely be challenging:* It is not anticipated that the study will likely be challenging. The purpose of the report is to determine if the project is consistent with the criteria for eligibility for USACE participation in the

modifications under the existing project authority. The report provides a basis for approving the use of Federal construction funding on a locally operated feature of the Federal project to make repairs to the existing project deficiencies. The report addresses alternatives (cost, design and performance) that include measures to correct the noted deficiencies. The analysis will be based on site inspections by the Jacksonville District Engineering Division. The USACE analysis will not require the development of any new models or methods or innovative design. There are no socio-economic concerns as the analysis will be limited to those corrective actions within an existing project. Regarding environmental considerations, initial construction and operation of the project was covered by an Environmental Impact Statement (EIS). The proposed work is in the same footprint as the initial construction. No new Environmental Assessment (EA) or EIS is needed; the modifications (repairs) to the existing features are covered under NEPA by a Categorical Exclusion. Paragraph 9a of ER 200-2-2, Procedures for Implementing NEPA, dated 4 March 1988, provides a categorical exclusion for activities at completed Corps projects which carry out the authorized project purposes. In addition, there would be no adverse effects to historic properties or cultural resources. None are recorded within the immediate project area and the work would be conducted within previously constructed areas. If items with historic or cultural value were to be discovered during construction, appropriate Jacksonville District personnel would be contacted to determine whether additional coordination and/or protective actions would be required.

- *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 risks for the corrective actions would mainly be related to construction. Construction techniques would be typical for those measures associated with flood risk management and water transportation to reduce risk associated with flooding. There are no risks to life safety; all construction would be confined within the existing project footprint and there would be no reduction of flood risk management within the USJRB project. Water is discharged into an unpopulated water conservation area. Risks associated with accuracy of the cost estimate will be addressed by review and certification by the USACE Cost Engineering Mandatory Center of Expertise, or Cost Engineering MCX.
- *If the project will likely be justified by life safety or if the project likely involves significant threat to human life/safety assurance:* The proposed repairs are not justified by, nor will they negatively affect, life safety. Water is discharged into an unpopulated water conservation area. These proposed modification actions will reduce the unacceptable risk due to the high probability of failure of these structures.

- *If there is a request by the Governor of an affected state for a peer review by independent experts:* To date, the Governor for the State of Florida has not requested a peer review by independent experts.
- *If the project/study is likely to involve significant public dispute as to the size, nature, or effects of the project:* The project is not likely to involve significant public dispute as to the size, nature or effects of the project. It is a modification of the existing project to correct design deficiencies.
- *If the project/study is likely to involve significant public dispute as to the economic or environmental cost or benefit of the project:* The project is not likely to involve significant public dispute as to the economic or environmental cost or benefit of the project. Modifications are associated with ensuring the project is functioning as initially intended. The report will determine if a design deficiency exists, and if so, describe alternative modifications and selection among these corrective actions will be based upon the lowest cost to achieve the intent and expected performance of the original design.
- *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:* Information contained in the report regarding the problems at the project was obtained from field visits and surveys performed by Jacksonville District USACE staff. No novel methods, innovative materials or techniques were used to collect the information. The information does not present complex challenges for interpretation. The alternative modifications proposed are neither novel nor precedent setting. Alternative modifications were developed to allow the project to function as designed and intended. Choices among alternative modifications were based on least cost to achieve the functions of the project. The report addresses alternative modifications that include repair of the barrel culverts that have corroded due to interaction with the original construction material and water quality in the project area.
- *If the project design is anticipated to require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design construction schedule:* The proposed alternative modifications do not require additional redundancy, resiliency, robustness, unique construction sequencing or scheduling over common USACE practice. Water is discharged into an unpopulated water conservation area.

d. In-Kind Contributions. Products and analyses provided by a non-Federal sponsor (NFS) as in-kind services are subject to DQC, ATR, and IEPR. No in-kind services are being provided by the NFS.

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 DQC.

- a. **Documentation of DQC.** DQC will be documented via signatures on a “Statement of Completion of DQC” outlining the interim or final product and required DQC. Comments were provided by tracked changes to the report. Tracked changes/comments were incorporated into the subsequent version.
- b. **Products to Undergo DQC.** Interim and final products will undergo DQC consistent with the Jacksonville District and CESAD Quality Management plans, in this case the draft and final report.
- 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, hydraulics and hydrology and cost engineering. These team members will not have had direct involvement throughout the development of the Modification 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 CESAD.

- a. **Products to Undergo ATR.** The Draft Modification Report and associated appendices / attachments will undergo ATR. The Final Modification Report will undergo an ATR consisting of backchecks to previous comments received to ensure appropriate revisions have been made to the report. The draft report and associated appendices / attachments will undergo review by the Cost MCX as part of the ATR process.
- b. **Required ATR Team Expertise.** An ATR Team Leader and six technical disciplines were determined to be appropriate for review of the report including: plan formulation, economics, hydrology and hydraulic engineering, civil/structural

engineering, cost engineering and environmental / National Environmental Policy Act (NEPA) compliance. All should be well-versed in conduct of flood risk and water management studies and projects. Reviewers will be from outside of the Jacksonville District and the review lead will be from outside CESAD. The names, organizations, contact information, credentials, and years of experience of the ATR members will be included in Attachment 1 once the ATR team is established. Although the deficiency report will include a Real Estate team member, the risk-informed decision is to not require ATR for real estate, based on (1) the lands required for construction, operation and maintenance of the structures subject of the report and review plan are already certified to the government and access to the structures is available via public highway and (2) the real estate description is very brief and only confirmatory, therefore, there is little risk and little value-added to include a Real Estate ATR team member.

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 that is able to determine if alternatives considered were sufficient, and appropriately considered, and evaluate policy compliance within the context of ER 1165-2-119, Modifications to Completed Projects.
Economics	The Economics reviewer should be a senior water resources economist that is able to determine if alternatives considered were sufficient, and appropriately considered, within the context of evaluation under ER 1165-2-119, Modifications to Completed Projects.
Civil/Structural Engineering	The team member should be a registered professional engineer and have 10 or more years experience in civil / structural engineering. Experience needs to include the engineering and design of water management project features such as levees and water control structures. Knowledge and experience in the field of corrosion control is required. Team member should be able to assist in determining if alternatives considered were sufficient, and appropriately considered, within the context of evaluation under ER 1165-2-119,

	Modifications to Completed Projects.
Hydrology and Hydraulics	The team member should be a registered professional engineer and have 7 or more years experience in hydrology and hydraulic engineering. Experience needs to include the engineering and design of water management project features such as levees and water control structures. Knowledge and experience in the field of corrosion control is required. Team member should be able to assist in determining if alternatives considered were sufficient, and appropriately considered, within the context of evaluation under ER 1165-2-119, Modifications to Completed Projects.
Cost Engineering	The cost engineering reviewer will be designated by the Walla Walla Cost Engineering MCX from their list of approved and qualified reviewers.
Environmental/NEPA Compliance	Reviewer should be a senior environmental resource specialist with experience in preparing NEPA documents and determining NEPA compliance.

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, ATR team members 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 EC 1165-2-214, 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 draft report and final report. A sample Statement of Technical Review is included in Attachment 2.

In some situations, the Cost MCX may request a separate Cost ATR DrChecks be established. This allows for separate cost comments to be evaluated and closed upon resolution. Resolution of comments is typically considered to be complete upon providing final cost products. In some cases these products are not provided by the end of the primary study ATR. Establishing a separate Cost ATR DrChecks could prevent the delay in certification of the primary study ATR.

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 1165-2-214, 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 IEPRs 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 1165-2-214.
- **Type II IEPR.** Type II IEPRs, or Safety Assurance Reviews (SARs), 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.

Decision on IEPR. The USJRB Modifications to Correct Deficiencies Report for Culverts S-252D, S-252E and S-252F is so limited in scope or impact that it would not significantly benefit from an independent peer review. Type I IEPR is not required for this Report. This Report does not trip any of the mandatory IEPR triggers. An exclusion from the requirements to conduct a Type I IEPR review on the USJRB Modifications to Correct Deficiencies Report for Culvert Structures S-252D, S-252E and S-252F Report has been requested. Type II IEPR is also not required. This project does not trigger WRDA 2007 Section 2035 factors for Safety Assurance Review (termed Type II IEPR in EC 1165-2-214) and therefore, a review under Section 2035 is not required.

Per EC 1165-2-214, paragraph 11.d. (1), **Type I IEPR** is mandatory if any of the following criteria are met:

- 11. d. (1) (a): Significant threat to human life: The project will not be justified by life safety nor does it involve significant threat to human life / safety assurance. This criterion is not met.
- 11.d.(1)(b): The estimated total cost of the project, including mitigation costs, is greater than \$200 million: The project has a cost estimate of \$3,570,000. This criterion is not met.
- 11.d.(1)(c): The Governor of an affected State requests a peer review by independent experts: To date, the Governor of the State of Florida has not requested a peer review by independent experts. This criterion is not met.

- 11.d.(1)(d): The Director of Civil Works or the Chief of Engineers determines that the project study is controversial due to significant public dispute over either the size, nature, or effects of the project or the economic or environmental costs or benefits of the project: The project is not likely to involve significant public dispute as to the size, nature, effects, or economic or environmental cost or benefit of the project. This criterion is not met.

Additional support for the Type I IEPR exclusion request and documentation that Type II IEPR is not required, is based on the criteria in EC 1165-2-214, Appendix E, paragraph 2, and the discussion in Section 3 – Factors Affecting the Scope and Level of Review and is provided in the following bullet:

- 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. No new Environmental Assessment (EA) or EIS is needed; the modifications (repairs) to the existing features are covered under NEPA by a Categorical Exclusion. Paragraph 9a of ER 200-2-2, Procedures for Implementing NEPA, dated 4 March 1988, provides a categorical exclusion for activities at completed Corps projects which carry out the authorized project purposes. There will be no adverse effects to historic properties or cultural resources. None are recorded within the immediate project area and the work will be conducted within previously constructed areas.

Per EC 1165-2-214, Appendix E, paragraph 2, **Type II IEPR** is required if the project will pose a significant threat to human life (public safety). The project will not be justified by life safety nor does it involve significant threat to human life / safety assurance. In addition, other factors to consider for conducting a Type II IEPR include:

- E-2a: The project involves the use of innovative materials or techniques where the engineering 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: This factor is not met.
- E-2b: The project design requires redundancy, resiliency, and robustness. This factor is not met.
- E-2c: The project has unique construction sequencing or a reduced or overlapping design construction schedule. This factor is not met.

Based on the project as currently envisioned, the Jacksonville 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.

- a. Products to Undergo Type I IEPR.** An exclusion from Type I IEPR has been requested. This section will be revised if an exclusion is not granted by HQUSACE.

b. Required Type I IEPR Panel Expertise. Not applicable.

c. Documentation of Type I IEPR. Not applicable.

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 report 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 AND ATR MANDATORY CENTER OF EXPERTISE (MCX) REVIEW AND CERTIFICATION

The Civil Works Cost Engineering and Agency Technical Review Mandatory Center of Expertise (MCX) with Technical Expertise (TCX), located in the Walla Walla District has already reviewed and certified cost.

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 USACE 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 model is anticipated to be used in the development of the decision document: None.

b. Engineering Models. The following engineering models are anticipated to be used in the development of the decision document: None.

10. REVIEW SCHEDULES AND COSTS

ATR Schedule and Cost. ATR will be conducted on the draft report with an ATR backcheck of comment resolution for the final report. ATR should start as soon as possible, upon SAD approval of the Review Plan. Anticipated duration breakdown includes initial ATR Team review and comment, 2 weeks; PDT comment evaluation, 1 week; ATR Team comment backcheck; 1 week; PDT provides revised report with commitments to ATR Team, 1 week; and ATR verification of commitments and certification, 1 week; for a total 6 week process. Estimated total ATR Team cost is \$30K.

a. Type I IEPR Schedule and Cost. Not applicable.

b. Model Certification/Approval Schedule and Cost. Not applicable.

11. PUBLIC PARTICIPATION

The initial construction of the project was covered by an EIS and the project documents were coordinated with the public. If the analysis as part of the Modifications to Correct Deficiencies Report determines that a design deficiency exists, the report will describe repairs to some of the existing facilities, to enable the project to perform as planned and designed. A USACE Categorical Exclusion letter will be coordinated with the USFWS for their concurrence. Public comment will not be sought for modifications. The review plan will be posted on website and the District will evaluate comments as received.

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 applicable) 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 Jacksonville district is responsible for keeping the Review Plan up to date. Minor changes to the review plan since the last CESAD Commander approval will be documented in Attachment 3. Significant changes to the Review Plan (such as changes to the scope and/or level of review) will be approved by the CESAD 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 Jacksonville District's webpage. The latest Review Plan will also be provided to the RMO and CESAD.

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, 904-232-1597
- South Atlantic Division Senior Plan Formulator, 404-562-5226
- Review Management Organization Reviewer, 918-669-7181

ATTACHMENT 1: TEAM ROSTERS

JACKSONVILLE DISTRICT PDT MEMBERS

Intentionally Removed

ATR TEAM MEMBERS TO BE DESIGNATED BY THE PCX-WMRS (designation will include credentials and years of experience when available)

VERTICAL TEAM, INCLUDING RMO (PCX-WMRS in this case), MSC, RIT, OEO (team members will be added as they are identified through the approval process of this Review Plan)

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 1165-2-214. 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

Name
ATR Team Leader
Office Symbol/Company

Date

SIGNATURE

Name
Project Manager
Office Symbol

Date

SIGNATURE

Name
Architect Engineer Project Manager¹
Company, location

Date

SIGNATURE

Name
Review Management Office Representative
Office Symbol

Date

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
Chief, Engineering Division
Office Symbol

Date

SIGNATURE

Name
Chief, Planning Division
Office Symbol

Date

¹ Only needed if some portion of the ATR was contracted

ATTACHMENT 3: REVIEW PLAN REVISIONS

Revision Date	Description of Change	Page / Paragraph Number