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

REPLY TO
ATTENTION OF

14 DEC 2012

CESAD-PDP

MEMORANDUM FOR Commander, Mobile District (CESAM-PD-FP/Flakes)

SUBJECT: Review Plan Approval for the Panama City Harbor, Florida, Channel Deepening, Limited Reevaluation Report

1. References:

a. Memorandum, CESAM-PD-FP, 7 December 2012, Subject: Project Review Plan – Panama City Harbor, Florida, Channel Deepening, Limited Reevaluation Report (LRR).

b. EC 1165-2-209, Civil Works Review Policy, 31 January 2010.

2. The enclosed Review Plan for the Panama City Harbor LRR has been prepared in accordance with Engineer Circular (EC) 1165-2-209. The Review Plan has been coordinated with the National Deep Draft Navigation Planning Center of Expertise (DDNPCX), which is the lead office to execute this plan. For further information, please contact the DDNPCX at (251) 694-3804. The Review Plan includes independent external peer review.

3. 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 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 the DDNPCX for their 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

DONALD E. JACKSON, JR.
COL, EN
Commanding

REVIEW PLAN

Panama City Harbor, Florida

Channel Deepening, Limited Reevaluation Report (LRR)

P2: 395107

Mobile District

December 2012

MSC Approval Date: Pending
Last Revision Date: NA

US Army Corps
of Engineers ®

REVIEW PLAN

Panama City Harbor Deepening Limited Reevaluation Report (LRR)

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1. PURPOSE AND REQUIREMENTS

a. Purpose. This Review Plan defines the scope and level of peer review for the Panama City Harbor Deepening, FL, Limited Reevaluation Report (LRR). This Review Plan is being developed concurrently to the LRR review.

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) Mobile District Quality Management Plan

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).

d. Types of Review

(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 Mobile District shall manage DQC. Documentation of DQC activities is required and will be in accordance with the Quality Manual of the District.

(2) Agency Technical Review (ATR). ATR is mandatory for all decision documents (including supporting data, analyses, and environmental compliance) and implementation documents. 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. The RMO for this effort in the Deep Draft Navigation Planning Center of Expertise, DDNPCX. 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 Major Subordinate Command (MSC).

(3) Independent External Peer Review (IEPR). Type I IEPR is required for all decision documents except where no mandatory triggers apply, criteria for 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. Any work product, report, evaluation, or assessment that undergoes DQC and ATR also MAY be required to undergo IEPR under certain circumstances. 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 USACE. 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.

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 National Deep Draft Navigation Planning Center of Expertise (DDNPCX).

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

3. STUDY INFORMATION

a. Decision Document. The LRR will provide an evaluation of the economics and environmental effects based on current policies, criteria, and guidelines. An accompanying Environmental Assessment (EA) in accordance with NEPA will be completed. The LRR will be consistent with the EA. The LRR will provide the factual basis for entering into a Project Partnership Agreement (PPA). A PPA is a legally binding agreement between the Federal government and the non-Federal sponsor, the Panama City Port Authority (PCPA), for construction of a navigation project. It describes the project and describes the responsibilities of the Government and non-Federal sponsor in cost-sharing and execution of project work. The Panama City Harbor Deepening LRR outlines the cost-sharing for Construction, and Operation and Maintenance (O&M) during the 50 year period of analysis. After the LRR is approved at SAD, a PPA will be prepared for execution between the Corps and the non-Federal sponsor, the Panama City Port Authority (PCPA).

b. Study/Project Description. The project scope covered in this LLR was authorized by the Rivers and Harbors Act of 30 June 1948 (House Document 559, 80th Congress, 2nd session) and previous acts and later modified by House document 196, 92nd Congress, 2nd Session, dated June 1972. Based on the current demand for deeper draft vessels utilizing the channel, the PCPA has requested that the Mobile District perform the necessary studies required to increase the depth of the eastern leg of the inner harbor from 32 to 36 feet, already authorized. The Mobile District in conjunction with SAD has determined that an LRR is required to provide a reevaluation of the economics and environmental effects against current policies, criteria, and guidelines. This report will also ensure that the design will accommodate current ship sizes and that adequate disposal is available. No additional Congressional authorization will be needed in order to implement the LRR.

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 the project has a cost estimate of more than $45 million*

  No. The project cost is less than $45 million

- *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.); and*

  There are no technically, institutionally, or socially challenging aspects to this study. This study is limited to a reevaluation of the economics and

environmental aspects of a proposed improvement to an already authorized feature of the Panama City Harbor Navigation Project to ensure that it meets current policies, criteria, and guidelines. This study will also ensure that the design will accommodate current ship sizes and that adequate disposal is available. The LRR will then serve to support a PPA by outlining the construction and cost-sharing.

- *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);*

  Project risks include a greater quantity of dredge material created during construction than identified disposal areas would allow, insufficient ship traffic to economically justify the project, and O&M costs for maintaining the larger channel greater than funds available for maintenance. These risks could impact the ability to implement the proposed work; however, the risk of these occurring is low. When these risks are combined, the cumulative risk to the project is still low.

- *If the project will likely be justified by life safety or if the project likely involves significant threat to human life/safety assurance (with some discussion as to why or why not and, if so, in what ways – consider at minimum the safety assurance factors described in EC 1165-2-209 including, but not necessarily limited to, the consequences of non-performance on project economics, the environmental and social well-being [public safety and social justice]; residual risk; uncertainty due to climate variability, etc.) – the discussion of life safety should include the assessment of the home District Chief of Engineering on whether there is a significant threat to human life associated with the project (per EC 1165-2-209 Frequently Ask Question 3.j.);*

  The construction scope addressed in this LRR will not be justified utilizing life safety and does not add significant threat to human life/safety assurance. This project only considers the deepening of a portion of the already authorized navigation channel. All work currently performed during operations will remain the same with only a very small increase in the volume of maintenance dredging.

- *If there is a request by the Governor of an affected state for a peer review by independent experts;*

  There is no request from the Governor of the state for 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 (with some discussion as to why or why not and, if so, in what ways);*

  There is no significant public dispute as to the size, nature or effects of the channel deepening.

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

  There is no significant public dispute as to the economic or environmental cost or benefit of the project. The economics portion of the LRR verifies that there is significant commodity growth to justify Federal deepening of the Panama City Harbor Navigation Channel. Environmental considerations are taken into account through NEPA (EA) and with beneficial use options.

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

  The information in the LRR is not based on novel methods, does not use innovative materials or techniques, does not present complex challenges, is not precedent setting, and is not likely to change prevailing practices.

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

  The LRR does not require any additional redundancy, resilience, or robustness. The LRR does not have unique construction sequencing or construction schedule.

- *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 LRR will not have significant environmental or social effects to the Nation, and no additional effects will result from the study. The deepening will provide beneficial economic effects to the Nation by allowing deeper draft ships to utilize the channel reducing shipping costs... At present, some ships are light loading cargo in order to be able to utilize the channel.

- *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 LRR is not likely to have any significant interagency interest. The LRR is being coordinated with the appropriate agencies, and there is no objection anticipated 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 LRR will not be controversial. This project only considers the deepening of a portion of an existing channel. All work currently performed during operations will remain the same with only a very small increase in the volume of maintenance dredging.

- *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.

d. Risk Informed Decisions on Appropriate Reviews. The following questions shall be explicitly considered, in accordance to EC 1165-2-209 paragraph 15b:

(1) Does it include any design (structural, mechanical, hydraulic, etc)?
Yes.

(2) Does it evaluate alternatives?
No.

(3) Does it include a recommendation?
Yes.

(4) Does it have a formal cost estimate?
Yes; it will be certified by the Cost DX

(5) Does it have or will it require a NEPA document?
Yes, it will have an accompanying EA.

(6) Does it impact a structure or feature of a structure whose performance involves potential life safety risks?
No.

(7) What are the consequences of non-performance?
If the recommended project is built and fails, no lives are at risk. If the recommended project is not built, no lives will be at risk but there will be negative economic effects.

(8) Does it support a significant investment of public monies?
Yes.

(9) Does it support a budget request?
Yes.

(10) Does it change the operation of the project?
Yes. This eastern leg of the current channel inner harbor has never been dredged due to a natural depth of 32 feet. The project scope in the LRR calls for a small amount of construction and future maintenance dredging and disposal facilities to provide for a deeper channel at a depth of 36 feet.

(11) Does it involve ground disturbances?
Yes, the dredging operations will disturb the bay bottom in an effort to establish and maintain the required increased depth.

(12) Does it affect any special features, such as cultural resources, historic properties, survey markers, etc, that should be protected or avoided?
No.

(13) Does it involve activities that trigger regulatory permitting such as Section 404 or storm water/NPDES related actions?
No.

(14) Does it involve activities that could potentially generate hazardous wastes and/or disposal of materials such as lead based paints or asbestos?
There is the potential of having to dispose of some contaminated dredged material in an upland site.

(15) Does it reference use of or reliance on manufacturers' engineers and specifications for items such as prefabricated buildings, playground equipment, etc?
No.

(16) Does it reference reliance on local authorities for inspection/certification of utility systems like wastewater, storm water, electrical, etc?
No.

(17) Is there or is there expected to be any controversy surrounding the Federal action associated with the work product?
No.

e. In-Kind Contributions. Products and analyses provided by the non-Federal sponsor as in-kind services are subject to DQC and may be subject to ATR and IEPR. The in-kind products include:
No in-kind products will be provided by the Non-Federal sponsor.

4. DISTRICT QUALITY CONTROL (DQC)

a. Documentation of DQC. District Quality Control will be conducted by the SAM Panama City LRR PDT Team, SAM independent reviewers, as well as chiefs of relevant key disciplines, where each of the reviewers will review the documents for accuracy. All reviewers are listed in Attachment 1. All DQC comments and responses will be documented by the Planning Technical Lead. The comment and response package, along with the DQC signature sheet, will be part of the report's transmittal package under the "Peer Review" section.

b. Products to Undergo DQC. The LRR and EA will undergo DQC at draft report stage.

c. Required DQC Expertise. The SAM Panama City Harbor PDT consists of key disciplines relevant to LRR and EA material: Navigation; Operations; Geotechnical; Hydraulics; Environmental; Navigation Planning; Legal; Cost; and, Economics. DQC reviewers consist of non-PDT experts and experts in the supervisory chain.

5. AGENCY TECHNICAL REVIEW (ATR)

a. Products to Undergo ATR. The LRR and EA will undergo ATR at the draft stage. The Cost Appendix and all associated materials will be provided to the cost reviewer. All ATR reviewers will be listed in Attachment 1.

b. Required ATR Team Expertise. The ATR Team will generally reflect the major technical disciplines of the Panama City Harbor LRR PDT. As such, it is expected that the ATR team will consist of the following disciplines: Plan Formulation, Navigation Operations, Geotechnical, Hydraulics, Environmental, Cost, Real Estate, Cultural Resources, and Economics.

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 will also serve as the Plan Formulation reviewer. The ATR Lead will be from a District outside the MSC.
Plan Formulation	The Plan Formulator will be a senior water resources planner with knowledge of the Corps civil works planning process, experience in navigation projects and associated planning reports and documents.
Economics	The economist will have knowledge of the Corps civil works planning process, and expertise in navigation economics appropriate for an LRR level to verify that the trends and commodities within the affected Ports indicate the need for maintenance of channels.
Environmental and Cultural Resources	This person must have recent experience in compliance with environmental laws (NEPA, Clean Water Act, Endangered Species Act, National Historic Preservation Act, etc) and be able to review the cultural resources portion of the report.
Geotechnical Engineering	The geotechnical engineer will have a minimum of five years expertise in geotechnical soils and construction to review upland disposal sites and materials assessment, and be a Professional Engineer (P.E.).
Hydraulic Engineering	This ATR member will have a minimum of five years expertise in the hydraulic design of deep draft navigation projects, and be a Professional Engineer (P.E.).
Cost Engineering	This ATR member must be able to review the cost estimates and have recent experience with cost estimating for navigation projects and disposal areas. Expertise in cost engineering and MII (MCACES Generation II) to review MCACES costs, and approved as an ATR reviewer by the Cost Engineering Directorate of Expertise
Real Estate	The Real Estate reviewer is to have expertise in the real estate planning process for cost shared and full federal civil works projects, relocations, report preparation and acquisition of real estate interests including navgation projects. The reviewer must have a full working knowledge of EC 405-2-12, Real Estate Planning and Acquisition Responsibilities for Civil Works Projects and Public Law 91-646. The reviewer must be able to identify areas of the REP that are not in compliance with the guidance set forth in EC405-2-12 and will make recommendations for bringing the report into compliance. All estates suggested for use will be reviewed to assure they are sufficient to allow project construction, and the real estate cost estimate will be

	validated as being adequate to allow for real estate acquisition.
Navigation Construction/Operations	This ATR member will have a minimum of 10 years expertise in O&M requirements associated with the design of deep draft navigation projects.

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

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

In some situations, especially where there appears to be 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, and MSC), 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 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.

The risk informed decision for not performing a Type I IEPR or a Type II IEPR 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 PDT determined that none of the contents of the LRR met the mandatory triggers for a Type I IEPR. Also considered were:
  - *The consequences of non-performance on project economics, the environmental and social well-being (public safety and social justice);*
    The LRR would neither increase 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 LRR and EA will not contain influential scientific information nor will they be 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 details provided below describe how the subject project addresses these factors.
    (1) Significant threat to human life. No. The Panama City Harbor Deepening poses no threat to human life.
    (2) Total Project cost greater than $45 million. Neither the estimated construction cost is more than $45 million, nor do the costs of the study and the O&M projected for the next 50 years exceed $45 million.
    (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 channel deepening.

(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 economics portion of the LRR verifies that there is significant commodity growth to justify Federal deepening of the Panama City Harbor Navigation Channel. Environmental considerations are taken into account through NEPA (EA) and with beneficial use options.

(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 LRR is minor in scope and is not based on novel methods or models.

(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 will 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 proposed project design is not based on novel methods, does not use innovative materials or techniques, does not present complex challenges, and is not precedent setting, and is not likely to change prevailing practices.
  - *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.
  - *If the project has unique construction sequencing or a reduced or overlapping design construction schedule.*
    The construction sequencing for this project is not unique.

Although none of the mandatory triggers currently require IEPR, this LRR will undergo Type I IEPR. As the study progresses, the PDT will review the Type I IEPR decision. If the PDT makes a risk-informed determination that the LRR is so limited in scope and impact that it would not significantly benefit from an independent external peer review, the PDT will then request an IEPR exclusion.

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

b. Products to Undergo Type I IEPR. The Limited Reevaluation Report and Environmental Assessment.

c. Required Type I IEPR Panel Expertise. The following provides a description of the proposed panel members and expertise. The proposed four member panel includes the necessary expertise to assess the engineering, environmental, and economic adequacy of the decision document, as required by EC 1165-2-209, Appendix D. The Outside Eligible Organization (OEO) will determine the final participants on the panel. The following table lists the suggested types of disciplines that might be included on the panel. The following disciplines are recommended based on the high risk factors as described in the risk register.

IEPR Panel Members/Disciplines	Expertise Required
Plan Formulation	This individual 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 comparing alternative plans for USACE.
Economics	The Economics Panel Member will have knowledge of procedures for deep draft navigation and containership analysis. Knowledge of tools employed for economic analysis, including HarborSym, risk analysis multiport analysis and trade forecasts.
Environmental	Knowledge of all applicable environmental laws and regulations Expert in coastal, estuarine, and riverine habitats and associated natural resources and the environmental impacts of harbor deepening as well as a familiarity with dredged material disposal and Offshore Dredge Material Disposal Sites.
Engineering - Hydraulic	Hydraulic Engineer – Knowledge of USACE guidance related to engineering requirements for the deep draft navigation studies. Knowledge of hydrodynamic riverine processes and navigational modifications to evaluate impact of deepening navigation channel on hydrodynamics, salinity and sedimentation of the river and harbor, coastal and bank erosion analysis, wake erosion and channel design. Ten years minimum experience with EFDC numerical model and ship simulation, and a Professional Engineer (P.E.).
Engineering- Geotechnical	Geotechnical Engineer - An understanding of the behavior of aquifers and soils, as well as the analysis and disposal of

IEPR Panel Members/Disciplines	Expertise Required
	dredged material, with a minimum of ten years experience, and a Professional Engineer (P.E.).

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

All decision documents shall be coordinated with the Cost Engineering and ATR MCX, located in the Walla Walla District. The MCX 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 MCX will also provide the Cost Engineering certification. The RMO is responsible for coordination with the Cost Engineering MCX.

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. For the purpose of economic investigations, HarborSym, Version 1.4.9.0 will be utilized. HarborSym is a certified model. HarborSym was initially developed as a tool for analyzing channel widening projects, which were oriented toward determining time savings or vessels transiting a harbor but did not, in general, involve assessing changes in vessel loading or shipping patterns. The latest HarborSym release is designed to assist analysts in evaluating channel deepening projects in addition to the original model capabilities. The additional deepening features captures fleet and loading changes, incorporates calculations for both within harbor costs and costs associated with ocean voyage costs, and includes three tools designed to aid planners in analyzing and developing future vessel calls lists for general bulk and containerized vessels.

b. Engineering Models. No engineering models will be used for this LRR.

10. REVIEW SCHEDULES AND COSTS

a. ATR Schedule and Cost. ATR of the draft document is planned for June 2013, at a cost of approximately $20,000.

b. Type I IEPR Schedule and Cost. IEPR of the draft document is scheduled for August 2013 at an estimated cost of $75,000.

c. Model Certification/Approval Schedule and Cost. All models to be used have been certified in accordance with EC 1105-2-412, Planning: Assuring Quality of Planning Models, and Enterprise Standard (ES)-08101, Software Validation for the Hydrology, Hydraulics, and Coastal Community of Practice.

11. PUBLIC PARTICIPATION

The public will be invited to comment on the Draft EA during the public review period in accordance with NEPA. The public comment period for the Draft EA is scheduled to be from 26 July 2013 to 22 August 2013. These comments, along with ATR and MSC comments, will be incorporated before finalizing the EA.

12. REVIEW PLAN APPROVAL AND UPDATES

The South Atlantic Division Commander is responsible for approving this Review Plan. The MSC Commander's approval reflects vertical team input (involving District, MSC, and RMO) as to the appropriate scope and level of review for the work product. Like the PMP, the Review Plan is a living document and may change as the study progresses. The Mobile District is responsible for keeping the Review Plan up to date. Minor changes to the review plan since the last MSC 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 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 MSC Commander's 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:

- Mobile District Project Manager
- South Atlantic Division Point of Contact
- Review Management Organization, DDNPCX, Mobile

ATTACHMENT 1: TEAM ROSTERS

PROJECT DELIVERY TEAM (PDT)

Discipline	Agency	Team Member	Phone
	U.S. Army Corps of Engineers (USACE)		
Economics	USACE-SAM		
Navigation Operations	USACE-SAM		
Cost Estimating	USACE-SAM		
Hydraulic Design	USACE-SAM		
Environmental (NEPA)	USACE-SAM		
Cultural Resources	USACE-SAM		
Geotechnical	USACE-SAM		
Planning Formulation	USACE-SAM		
Office of Counsel	USACE-SAM		
Project Manager	USACE-SAM		
Real Estate	USACE-SAM		

DQC INDEPENDENT REVIEWERS

Title	Agency	Name	Phone
Economics	USACE-SAM		
Navigation Operations	USACE-SAM		
Cost Estimating	USACE-SAM		
Hydraulic Design	USACE-SAM		
Environmental (NEPA)	USACE-SAM		
Geotechnical	USACE-SAM		

ATR TEAM (Draft Report)

Discipline/Expertise	Name	District/Division	Phone
DDNPCX ATR Manager		Mobile/SAD	
District ATR Coordinator		Mobile	
Agency Technical Review Team			
ATR Team Leader/Plan Formulation	TBD		
Cost DX	TBD		
Cost Engineering	TBD		
Economics	TBD		
Navigation Dredging	TBD		
Environmental	TBD		
Geotech	TBD		
Hydraulic Design	TBD		
Real Estate	TBD		

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

SIGNATURE _____ Date _____

ATR Team Leader
Office Symbol/Company

SIGNATURE _____ Date _____

Project Manager
SAM-PMC

SIGNATURE _____ Date _____

Architect Engineer Project Manager[1]
SAM-ENHH

SIGNATURE _____ Date _____

Review Management Office Representative
Office Symbol

CERTIFICATION OF AGENCY TECHNICAL REVIEW

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

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

SIGNATURE _____ _____
Date

Chief, Engineering Division
SAM-EN

SIGNATURE _____ _____
Date

Chief, Planning Division
SAM-PD

SIGNATURE _____ _____
Date

Chief, Operations Division
SAM-OP

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

ATTACHMENT 3: REVIEW PLAN REVISIONS

Revision Date	Description of Change	Page / Paragraph Number