REVIEW PLAN

General Re-evaluation Study
Tampa Harbor Project, Florida

Jacksonville District

October 2007

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US Army Corps of Engineers ®

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1. PURPOSE AND REQUIREMENTS

a. **Purpose.** This Review Plan defines the scope and level of peer review for the General Re-evaluation Study, Tampa Harbor Project, Florida.

b. **References**

(1) Engineering Circular (EC) 1165-2-209, Civil Works Review Policy, 31 Jan 2010
(2) EC 1105-2-407, Planning Models Improvement Program: Model Certification, 31 May 2005
(3) Engineering Regulation (ER) 1110-2-12, Quality Management, 30 Sep 2006
(4) PMP for General Re-evaluation Study, Tampa Harbor Project, Florida, April 2002
(5) Personal communications with the Project Manager and Planning Technical Lead

c. **Requirements.** This review plan was developed in accordance with EC 1165-2-209, which establishes the procedures for ensuring the quality and credibility of U.S. Army Corps of Engineers (USACE) decision documents through independent review. The EC outlines three levels of review: District Quality Control, Agency Technical Review, and Independent External Peer Review. In addition to these three levels of review, decision documents are subject to policy and legal compliance review and, if applicable, safety assurance review and model certification/approval.

(1) District Quality Control (DQC). DQC is the review of basic science and engineering work products focused on fulfilling the project quality requirements defined in the Project Management Plan (PMP). It is managed in the home district and may be conducted by staff in the home district as long as they are not doing the work involved in the study, including contracted work that is being reviewed. Basic quality control tools include a Quality Management Plan providing for seamless review, quality checks and reviews, supervisory reviews, Project Delivery Team (PDT) reviews, etc. Additionally, the PDT is responsible for a complete reading of the report to assure the overall integrity of the report, technical appendices and the recommendations before approval by the District Commander. The Major Subordinate Command (MSC)/District quality management plans address the conduct and documentation of this fundamental level of review; DQC is not addressed further in this review plan.

(2) Agency Technical Review (ATR). ATR is an in-depth review, managed within USACE, and conducted by a qualified team outside of the home district that is not involved in the day-to-day production of the project/product. The purpose of this review is to ensure the proper application of clearly established criteria, regulations, laws, codes, principles and professional practices. The ATR team reviews the various work products and assure that all the parts fit together in a coherent whole. ATR teams will be comprised of senior USACE personnel (Regional Technical Specialists (RTS), etc.), and may be supplemented by outside experts as appropriate. To assure independence, the leader of the ATR team shall be from outside the home MSC.

(3) Independent External Peer Review (IEPR). IEPR may be required for decision documents under certain circumstances. IEPR is the most independent level of review, and is applied in cases that meet certain criteria where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside of USACE is warranted. A risk-informed decision, as described in EC 1165-2-209, is made as to whether IEPR is appropriate. IEPR panels will consist of independent, recognized experts from outside of the USACE in the appropriate disciplines, representing a balance of areas of expertise suitable

for the review being conducted. There are two types of IEPR: Type I is generally for decision documents and Type II is generally for implementation products.

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

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

(4) Policy and Legal Compliance Review. Decision documents will be reviewed throughout the study process for their compliance with law and policy. These reviews culminate in Washington-level determinations that the recommendations in the reports and the supporting analyses and coordination comply with law and policy, and warrant approval or further recommendation to higher authority by the Chief of Engineers. Guidance for policy and legal compliance reviews is addressed further in Appendix H, ER 1105-2-100, Planning Guidance Notebook. When policy and/or legal concerns arise during DQC or ATR that are not readily and mutually resolved by the PDT and the reviewers, the District will seek issue resolution support from the MSC and HQUSACE in accordance with the procedures outlined in Appendix H, ER 1105-2-100. IEPR teams are not expected to be knowledgeable of Army and administration polices, nor are they expected to address such concerns. The home district Office of Counsel is responsible for the legal review of each decision document and signing a certification of legal sufficiency.

(5) Model Certification/Approval. EC 1105-2-407 requires certification (for Corps models) or approval (for non-Corps models) of planning models used for all planning activities. The EC defines planning models 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 EC does not cover engineering models used in planning. Engineering software is being address under the Engineering and Construction (E&C) Science and Engineering Technology (SET) initiative. Until an appropriate process that documents the quality of commonly used engineering software is developed through the SET initiative, engineering activities in support of planning studies shall proceed as in the past. 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.

2. STUDY INFORMATION

a. **Decision Document.** The Tampa Harbor General Re-evaluation Report (GRR) has been funded to investigate improvements to the Tampa Harbor Project. Relieving navigation congestion and improving safety are the primary missions of the GRR. The level of approval is at the Secretary of the Army for Cut B widening. Additional Congressional authority will be required for Cut A widening. Compliance with the National Environmental Policy Act (NEPA) will be accomplished by preparation of an Environmental Assessment (EA).

b. **Study Description**.

Tampa Harbor provides a large, natural Y-shaped indentation of the Gulf of Mexico midway up the west coast of peninsular Florida. The Tampa Harbor Federal Navigation Project consists of about 70 miles of channels from the Gulf of Mexico entrance at the Egmont Bar north to the City of Tampa, including Hillsborough River, Alafia River, and the Upper Channels (Attachment 1).

Section 3053 of the Water Resources Development Act (WRDA) of 2007 states: "IN GENERAL.—The project for navigation, Tampa Harbor, Florida, authorized by section 101 of the River and Harbor Act of 1970 (84 Stat. 1818), is modified to authorize the Secretary to construct passing lanes in an area approximately 3.5 miles long and centered on Tampa Harbor Cut B if the Secretary determines that such improvements are necessary for navigation safety."

The bay is home to five ports: the Port of Tampa, St. Petersburg, Big Bend, Alafia, and Port Manatee. All harbor traffic from these ports must use the same entrance and main channel as the Port of Tampa.

The non-Federal Sponsor is the Tampa Port Authority (TPA), which oversees the Port of Tampa. Tampa Port Authority has jurisdiction over all of the land and shipping operations in the Hillsborough County Port District. However, the TPA does not own all the port/shipping facilities therein. The TPA requested that the U.S. Army Corps of Engineers study the feasibility of improving navigation safety in Tampa Harbor.

As Florida's largest cargo port, the Port of Tampa handles approximately 50 million tons of cargo per year, mainly liquid and dry bulk commodities, specifically transportation fuels, and fertilizer products and raw materials. The Port of Tampa is among the world's premier fertilizer ports. The Port of Tampa continues to grow and diversify, attracting new investments and facilitating trade growth while enhancing security and safety. The Port of Tampa currently ranks xx as a leading port in the country.

The main Tampa Harbor channel (Cuts A through F and the Gadsden Cut), with an existing width of 500 feet and depth of 43 feet, is too narrow for safe two-way vessel traffic when there is a Fantasy class vessel in transit. Fantasy class vessels have lengths of 857 feet, beams of 103 feet, and drafts of 25 feet. As a result of the narrow channel width, safety restrictions require that all other vessels must take second priority to the Fantasy class vessels until the Fantasy class vessels move through the channel. Other vessels are restricted to one-way traffic in the same direction as the large vessel, causing extensive delays for traffic in the other direction. Safety is a large concern, as several collisions, allisions, and groundings have occurred in the narrow channel. Additionally, having only one-way traffic and delays could threaten safety if there was a need to allow certain ships to transit or evacuate the channel while a Fantasy class vessel is in transit. Fantasy class vessels are currently scheduled to transit the 42-mile ship channel 300 times per calendar year. This restriction creates congestion, safety hazards, and economic inefficiency. Note that the entrance channel cuts that ships enter just prior to the Tampa Harbor cuts, including Egmont Key Cut 1, Egmont Key Cut 2, and Mullet Key Cut, are wider than the Tampa Harbor cuts. The widths

of Egmont Key Cuts 1 and 2 are 700 feet, and the width of Mullet Key Cut is 600 feet. The decrease in channel width traveling into Tampa Bay creates a severe bottle-neck effect as vessels travel into the 500-foot main channel.

Currently, the harbor pilots are not willing to assume the risk of trying to pass a fantasy class vessel or attempt two-way traffic. For this reason, they must wait until the fantasy class vessel finishes its transit, incurring severe delays and impacting services of delivery of essential commodities such as petroleum.

This problem causes a rippling economic impact throughout the hinterland. For example, petroleum accounts for 28 percent of the Port of Tampa's tonnage. The petroleum industry hinterland for petroleum moving through the Port of Tampa includes Florida, South Georgia, and Alabama. Delays in vessel movements impact the on-demand time delivery cycle of petroleum products, which include gasoline and jet-fuel. Ever-increasing petroleum deliveries support area growth, airport traffic, and strategic military operations. One of the many military operations in the region includes the refueling wing at MacDill Air Force Base, which serves all of North America and the theatre of operations. In Florida, the petroleum industry maintains a seven-day supply and ensures enough products in holding tanks to guarantee tank integrity. A tenet of the petroleum suppliers is to deliver orders on demand. As demand increases, it becomes more and more difficult to meet this tenet when shipments are delayed. Some of the shipment delays are because vessels are unable to make these movements during the window of opportunity as a result of congestion in other areas of the port system, as a result of meeting and overtaking restrictions.

The TPA and other interests believe that the existing navigation project could be improved through widening to improve safety of deep draft commercial vessels, to increase operational efficiency, and to reduce vessel operation costs. This would result in transportation cost savings and reduce cargo delivery delays.

According to the Tampa Bay Pilots and as stated in the ship Simulation Report, the length required for a passing zone is not determined by how much length is required for the ships to meet each other, but rather the passing zone must be of sufficient length that the pilots of inbound and outbound ships are confident that they can meet within the zone. Ships may only spend about 15 minutes in Cut B traveling at 14 knots; therefore, passing is a timing issue and every minute counts. Numerous situations can occur during a transit which will affect the ship's speed (such as mechanical failure, steerage, and tide jobs, explained in the Ship Simulation Report), and thus the timing for two ships to arrive simultaneously to achieve passing. Fantasy class vessels have lengths of 857 feet, beams of 103 feet. Unpredictable tides and currents can cause a situation called crabbing, resulting in a vessel rotating due to the effect of wind on the large surface area of the side of the vessel, and transiting through the channel at an angle, resulting in an effective beam of 150-225 feet. This creates a dangerous situation that prevents meeting or overtaking in the 500-foot wide channels of the Tampa Harbor Project. Passing (overtaking) requires a long cut, like Cut B or Gadsden, and the overtaking is a very dynamic evolution. For these reasons, the Tampa Bay Pilots insist that this widening project is essential to safety and efficiency.

The recommended plan will most likely be to widen Cut B by 100 feet total, on one side only, to the west/north. The plan could also include widening Cut A by 100 feet total on one side. Both Cuts A and B comprise just 10% of the entire Federal Channel length.

Environmental surveys showed that a hardbottom ledge exists in a linear fashion along the top of the channel banks of Cuts A and B. This hardbottom is an extremely soft limestone with various levels of relief that has provided a substrate for benthic organisms to inhabit. The limestone substrate forming the existing hardbottom habitat was uncovered during the original Tampa Harbor Deepening project in the 1980s. Multibeam sonar surveys indicate that the same limestone rock will be uncovered during the GRR widening project. USACE-SAJ contracted sidescan sonar to assist with delineating the location of the

hardbottom ledge habitat, and the data indicated that the southern channel bank had more existing ledge habitat than did the northern channel bank. To minimize environmental impacts, the PDT proposed a design change to limit widening to 100 feet on the north/west bank, rather than 50 feet on both sides.

Since sub-bottom profile survey data indicates that the limestone extends intermittently throughout this portion of the Tampa Bay, it is expected that the similar limestone rock will be exposed during the widening of the channel. Therefore, the total acreage of hardbottom habitat should not change following project construction. However, due to the time loss it will take for benthic organisms to re-colonize the newly exposed rock substrate, some compensatory mitigation will need to be provided to offset the temporal loss in habitat function. To achieve this, the current mitigation plan uses strategic dredge equipment and logistics to relocate the existing rock substrate from the top of the channel bank to a location approximately 500-feet north of Cut B. The PDT conducted a Value Engineering Study to assess best practices for construction methods for mitigation and the project as a whole.

Federal Authority

House Document 91-401, 91st Congress, December 31, 1970, authorized the initiation and partial accomplishment of the Tampa Harbor project not to exceed $40,000,000.

The House of Representatives Congressional Resolution 2533, 105th Congress (1997) adopted a resolution requesting:

Resolved by the Committee on Transportation and Infrastructure of the United States House of Representatives, That the Secretary of the Army review the report of the Chief of Engineers on the Tampa Harbor, Florida, published as House Document 491, 91st Congress, Second Session and other pertinent reports, with a view of determining if the authorized project should be modified in any way at this time, with particular reference to a deep draft anchorage." The basis for the re-evaluation is the 1969 Survey-Review Report on Tampa Harbor, Florida. The project resulting from that report is described in House Document No. 91-401 and was authorized in Public Law 91-611, Title I, Section 101. A harbor-wide initiative rescaled and focused efforts to evaluate congestion relief proposals in the main ship channel and the need for anchorage areas.

Congressional interest in the Tampa Bay navigational improvements was confirmed on November 7, 2003 by the 108th Congress in Report No. 108-357, Energy and Water Act which contained the following language:

That the Secretary of the Army, acting through the Chief of Engineers, is directed to use funds appropriated for the navigation project, Tampa Harbor, Florida, to carry out, as part of the project, construction of passing lanes in an area approximately 3.5 miles long, centered on Tampa Bay Cut B, if the Secretary determines that such construction is technically sound, environmentally acceptable, and cost effective.

Passing of WRDA 2007, Sec. 3053, authorized navigational improvements in Tampa Bay with the following language:

SEC. 3053. TAMPA HARBOR CUT B, FLORIDA.
(a) IN GENERAL.—The project for navigation, Tampa Harbor, Florida, authorized by section 101 of the River and Harbor Act of 1970 (84 Stat. 1818), is modified to authorize the Secretary to construct passing lanes in an area approximately 3.5 miles long and centered on Tampa Harbor Cut B if the Secretary determines that such improvements are necessary for navigation safety.

Proposed Project Modifications: The Tampa Harbor GRR, a single-purpose navigation study, has been funded to investigate improvements to the Tampa Harbor Project. Improving navigation and National security are the primary missions of the general re-evaluation study. The final alternatives will be reviewed for consistency with TPA's master plan. Proposed modifications, which were examined during the study, involved ways to reduce navigation congestion in the harbor, while increasing safety. During the plan formulation process, the alternatives which made it through screening and carried the most net benefits were ones which proposed combinations of main channel widening.

In addition, the following will be included either as project components or as part of the Tampa Harbor Project Dredged Material Management Plan (DMMP to be revised in keeping with the results of the study):

a. Mitigation strategies. The GRR will include an incremental mitigation appendix to discuss the mitigation plan development and to show that it is the most cost-effective plan. Additionally, the GRR will include a description of the Federal monitoring ability. An environmental monitoring program will be presented in the GRR for the recommended plan (including costs). Monitoring will be incorporated as an operations and maintenance (O&M) cost as necessary.

b. Project footprint. The GRR will cover all work to be done for any Federal project improvements, including berthing area and access channel dredging conducted concurrently with dredging for the Federal project as necessary. A water quality certificate will be an outcome of the study.

c. Placement areas. The GRR will discuss potential use of the permitted offshore dredge material disposal site (ODMDS), as well as address other placement options that may be least cost alternatives.

d. Beneficial uses of dredged material. This topic is addressed extensively in the Tampa Bay Dredged Material Management Strategy and in the DMMP. Information gathered that supplements that which is already addressed will be included in the GRR.

In addition, the Tampa Agency on Bay Management has identified the following concerns that must be considered as appropriate within the scope of the resource survey and impact analysis:

a. Determine direct and indirect impacts to Manatees;
b. Report on potential seagrass and hard-bottom habitat loss and impacts to larval fishes and shellfish due to changes in Bay circulation and flushing patterns; and
c. Report on how the proposed improvements will affect State-designated Aquatic Preserves or other Outstanding Florida Waters.

FEBRUARY 2011 UPDATE

Updated to add IEPR exclusion approval documentation. See Section 4.b, below, and Attachment 2.

MAY 2010 UPDATE

Based on preliminary benefits and costs (in the AFB Package in 2008), alternative D4, Channel Widening (Main Cut A and B) represented the NED plan. An incremental analysis further showed that all of Cut B, as well as a segment of Cut A (only north of the Sunshine Skyway Bridge), is the

NED plan. This plan maximizes NED benefits with net benefits $900,000 and a benefit to cost ratio of 1.79. This plan, Alternative 1, has a cost of approximately $23,000,000. Also, the Tampa GRR has recently had an economics update to incorporate recent years of data and make new commodity forecast projections. Costs are being revised to incorporate dredging quantities on one side of the channel, changes in dredge equipment due to relocation of hardbottom substrate for mitigation, and additional new Aids to Navigation costs. This project has also recently had a Value Engineering Study to assess best practices for construction methods for mitigation and the project as a whole.

The Project Delivery Team

Project Manager	Civil Engineer	Jacksonville District
Planning Technical Lead	Civil Engineer	Jacksonville District
Engineering Technical Lead	Civil Engineer	Jacksonville District
Geotechnical Analysis	Geologist	Jacksonville District
Cost Engineering	Cost Engineer	Jacksonville District
Hydrodynamic Modeling	Hydraulic Engineer	Jacksonville District
Environmental Analysis	Biologist	Jacksonville District
Real Estate Evaluation	Real Estate	Jacksonville District
Economic Analysis	Economist	Jacksonville District
Construction/Operations	Civil Engineer	Jacksonville District
Legal Evaluation	Attorney	Jacksonville District

e. **Factors Affecting the Scope and Level of Review**

This section of the Review Plan discusses the factors necessary to determine the appropriate scope and level of review for the decision document as specified in EC 1165-2-209. This information has been used to recommend the appropriate level of review and select the types of expertise represented on the review teams. The following triggers were evaluated to determine whether or not Type I IEPR is mandatory for this study (Source: EC Appendix D, Section 1.b).

- **Is there a significant threat to human life?**

  No significant threat to human life exists. The project involves widening existing Federal navigation channels.

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

  No. The feasibility phase cost estimate is approximately $23 million.

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

  No.

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

  No. Federal and state agencies charged with review of the project have not determined that there are any significant adverse impacts resulting from the proposed project. An EIS is not required for this project. The GRR is not anticipated to contain influential scientific information, nor will it be a highly influential scientific assessment. Although the project may affect certain species as

identified in the Environmental Assessment, the appropriate coordination will be completed under the Endangered Species Act. The hardbottom habitat located along the top of the channel bank provides forage and cover for fishes, but similar habitat is expected to establish along the new channel bank. Mitigation will be provided to offset the temporal loss in habitat value by relocating the rock substrate to a nearby mitigation area located north of Cut B.

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

  No. Significant public dispute is not anticipated.

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

  No. Significant public dispute is not anticipated.

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

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

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

  Not at this time.

In summary, the Tampa Harbor GRR does not invoke any of the mandatory triggers requiring IEPR. However, WRDA 2007, Section 2034 intent is that most studies should undergo IEPR. The following is a more in-depth discussion of relevant issues to help decide if the study should be excluded from IEPR.

- 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.);
  - This is a navigation project, with potential to widen up to 7 miles out of the 70 mile Federal channel by 100 feet total. The area of widening has been scaled back from studying the entire federal channel to just 10% of the channel, in the most strategic cut(s) that will provide the most efficiency to the harbor pilots for allowing passing and overtaking, and which also gives the most net benefits to the nation. Dredging will be typical of most navigation projects with no foreseen difficulty or challenge. A small pocket of hard rock (roughly 2% of the dredged material) is predicted. A clamshell dredge would be used to remove the hard rock, but the project will allow blasting for the small area if necessary. Removing the hard bottom ledge and relocating it to the new site for temporal mitigation will add a layer of strategy to the project but is very achievable.

- A preliminary assessment of where the project risks are likely to occur and what the magnitude of those risks might be (e.g., what are the uncertainties and how might they affect the success of the project);
    - There is a potential risk that insufficient rock material exists for relocation to the mitigation site to adequately offset the temporal impacts to the existing hardbottom habitat. If there is not sufficient material to relocate, limestone or other suitable material would need to be purchased to ensure the appropriate amount of mitigation is created.
- 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);
    - No. The hard bottom ledge itself was created by the original Tampa Harbor dredge project, and it is expected to re-establish itself on the newly exposed surface after project construction. The aquatic life found in the bay is not significant in the area. Appropriate mitigation will be created to offset the temporal loss of habitat occurring from the time of project construction until similar habitat develops on the newly exposed ledge.
- 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);
    - No. The widened section of the channel will greatly reduce congestion and increase vessel safety. The hardbottom habitat created as a result of the creation of the channel is expected to also be created during channel widening. Therefore, there will be only a temporal loss in habitat function during project construction until benthic organisms can re-colonize the newly exposed rock surfaces. The rock that formed the substrate of the existing hardbottom habitat will be relocated to the mitigation site, and will continue to provide suitable substrate for benthic communities.
- 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);
    - No. Although the project may affect the species identified in the GRR, it is not likely to adversely affect these species. Coordination has occurred with resource agencies and all have been responsive to constructive feedback, with no outstanding issues.
- If the project/study likely involves significant threat to human life/safety assurance;
    - No. This project will use typical dredging practices and the project (widening) will actually increase safety for the vessels that transit the channels each day.
- If the project will be highly controversial (with some discussion as to why or why not and, if so, in what ways);
    - No. This is a typical navigation project with a mitigation component, which will be achieved by relocation of the rock substrate that forms the hardbottom habitat. Agency coordination has occurred on a routine basis through monthly meetings, and at each project checkpoint.
- If the information in the decision document will likely be based on novel methods, present complex challenges for interpretation, contain precedent-setting methods or models, or present conclusions that are likely to change prevailing practices.
    - No.

f. **In-Kind Contributions.** There are not any in-kind contributions.

3. AGENCY TECHNICAL REVIEW (ATR)

a. **General.** ATR for decision documents are managed by the appropriate Planning Center of Expertise (PCX) with appropriate consultation with the allied Communities of Practice such as engineering and real estate. The ATR shall ensure that the product is consistent 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 the

results in a reasonably clear manner for the public and decision makers. Members of the ATR team will be from outside the home district. The ATR lead will be from outside the home MSC. The leader of the ATR team will participate in milestone conferences and the Civil Works Review Board (CWRB) to address review concerns.

b. **Products for Review.** At minimum, ATR has, or will be performed for the Feasibility Scoping Meeting (FSM) documentation, Alternative Formulation Briefing (AFB) documentation, Draft Report, Revised Draft Report and Final Report.

c. **Required ATR Team Expertise.** The PCX will select the team members. Technical disciplines determined to be appropriate for review of the draft and final reports, at a minimum, include: plan formulation, economics, environmental/NEPA compliance, hydraulics and hydrology, geotechnical engineering, cost engineering, and real estate. SAJ and the DDNPCX will collaborate to produce detailed scopes of work prior to each review. All should be well-versed in conduct of deep draft navigation studies that potentially include widening of channels and all associated activities. Suggested issues to inform the review include:

(1) Plan formulation – adequacy and comprehensiveness

(2) Economic evaluation - evaluation of analytical methods employed in the economic evaluation application (HarborSym)

(3) Environmental Analysis – application of HEA model to calculate the necessary mitigation to compensate for interim loss of services

(4) NEPA Compliance – whether or not all NEPA requirements were, or will be met

(5) Geotechnical engineering – whether or not analyses and conclusions are reasonable

(6) Hydraulic engineering evaluations – whether or not analyses and conclusions are reasonable

(7) Cost engineering – cost certification, or verification, thereof

(8) Real Estate issues

The DDNPCX will be responsible for organizing and employing a qualified team. A detailed scope of work and cost estimate will be agreed to between the project District and the DDNPCX prior to each review.

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

(1) The review concern – identify the product's information deficiency or incorrect application of policy, guidance, or procedures;
(2) The basis for the concern – cite the appropriate law, policy, guidance, or procedure that has not be properly followed;
(3) The significance of the concern – indicate the importance of the concern with regard to its potential impact on the plan selection, recommended plan components, efficiency (cost),

effectiveness (function/outputs), implementation responsibilities, safety, Federal interest, or public acceptability; and

(4) The probable specific action needed to resolve the concern – identify the action(s) that the reporting officers must take to resolve the concern.

In some situations, especially addressing incomplete or unclear information, comments may seek clarification in or 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 coordination, and lastly the agreed upon resolution. The ATR team will prepare a Review Report which includes a summary of each unresolved issue; each unresolved issue will be raised to the vertical team for resolution. Review Reports will be considered an integral part of the ATR documentation 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.

ATR may be certified when all ATR concerns are either resolved or referred to HQUSACE for resolution and the ATR documentation is complete. Certification of ATR should be completed, based on work reviewed to date, for the AFB, draft report, and final report. A sample certification is included in ER 1110-2-12.

4. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)

a. **General.** IEPR is conducted for decision documents if there is a vertical team decision (involving the district, MSC, PCX, and HQUSACE members) that the covered subject matter meets certain criteria where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside the USACE is warranted. IEPR is coordinated by the appropriate PCX and managed by an Eligible Outside Organization (OEO) external to the USACE. IEPR panels shall evaluate whether the interpretations of analysis and conclusions based on analysis are reasonable. To provide effective review, in terms of both usefulness of results and credibility, the review panels should be given the flexibility to bring important issues to the attention of decision makers; however, review panels should be instructed to not make a recommendation on whether a particular alternative should be implemented, as the Chief of Engineers is ultimately responsible for the final decision on a planning or reoperations study. IEPR panels will accomplish a concurrent review that covers the entire decision document and will address all the underlying engineering, economics, and environmental work, not just one aspect of the study. Whenever feasible and appropriate, the office producing the document shall make the draft decision document available to the public for comment at the same time it is submitted for review (or during the review process) and sponsor a public meeting where oral presentations on scientific issues can be made to the reviewers by interested members of the public. An IEPR panel or OEO representative will participate in the CWRB.

b. **Decision on IEPR. The Tampa Harbor GRR was excluded from the requirement for IEPR. See approval documentation at Attachment 2.** The Tampa Harbor GRR does not invoke any of the mandatory triggers requiring Type I IEPR. However, the WRDA 2007, Section 2034 intent is that most studies should undergo IEPR. Section 2.e, above, evaluated a variety of triggering factors that

would make Type I IEPR mandatory. None were triggered. Furthermore, the following factors suggest that Type I IEPR would not be warranted:

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

A Type II IEPR/SAR is not currently planned, because at this time it is not clear that the project would produce potential hazards which pose a significant threat to human life. However, the need for SAR will be revisited in a follow-on, implementation phase review plan.

c. **Products for Review.** In the event the Type I IEPR is required, the Tampa Harbor General Re-evaluation Report (GRR) and technical appendices will be reviewed.

d. **Required IEPR Panel Expertise.** In the event that Type I IEPR is required, the disciplines that should be included are: engineer (with experience in dredging and confined dredged material disposal), economics, biologist or environmental engineer (with experience in environmental and coastal processes) and plan formulation, as follows:

(1) Dredging Expert Panel Member. The Dredging Expert Panel Member should be a registered professional engineer with a minimum of 10 years experience from academia or an Architect-Engineer or Consulting Firm. The Panel Member should have demonstrated experience in deep draft navigation channels, dredged material disposal, confined disposal areas, erosion, coastal currents, channel modifications, with a minimum MS degree or higher in Civil, Hydraulic or related Engineering field. Active participation in related professional societies is encouraged.

(2) Economics Panel Member. The Economics Panel Member should be a scientist from academia, a public agency, a non-governmental entity, or an Architect-Engineer or Consulting Firm with at least a Bachelors degree. Member must have at least 10 years experience in economic analysis, with project experience including evaluating and conducting transportation-related projects. Deep-draft navigation experience is encouraged. Experience directly working for or with USACE is highly recommended.

(3) Plan Formulation Member: This individual should 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.

(4) Biologist or Environmental Engineer Panel Member. This individual should be a scientist from academia, a public agency, a non-governmental entity, or an Architect-Engineer or Consulting Firm with a minimum 10 years demonstrated experience in environmental, estuarine, and coastal and estuarine processes and an understanding of ecological responses to dredging of hardbottom habitats. The Panel Member should have a minimum MS degree or

higher in an appropriate field of study. Active participation in related professional societies is encouraged.

e. **Documentation of IEPR.** In the event that Type I IEPR is required, 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.

5. MODEL CERTIFICATION AND APPROVAL

a. **General.** The use of certified or approved models for all planning activities is required by EC 1105-2-407. This policy is applicable to all planning models currently in use, models under development and new models. The appropriate PCX recommends model approval or approval for use to HQ Planning. HQ is the approving organization. Environmental models and appropriateness for use need to be coordinated with the Ecosystem Restoration Center of Expertise (ECO-PCX). The goal of certification/approval is to establish that planning products are theoretically sound, compliant with USACE policy, computationally accurate, and based on reasonable assumptions. The use of a certified or approved model does not constitute technical review of the planning product. Independent review of the selection and application of the model and the input data and results is still required through conduct of DQC, ATR, and, if appropriate, IEPR. Independent review is applicable to all models, not just planning models. Both the planning models (including the certification/approval status of each model) and engineering models used in the development of the decision document are described below:

b. **Models.**

The following models that will be employed for this project have been approved for use.

Engineering Models

(1) Hydraulic Modeling: TAB System Models (RMA2 and 10). Hydraulic modeling was performed in-house, by the Jacksonville District Engineering Division, Waterways Modeling Section (EN-WM).

(2) Ship Simulation Model, performed by the Corps of Engineers Engineering Research and Development Center (ERDC), Vicksburg, MS.

Planning/Economic Studies Models

The commercial navigation benefit analysis evaluates the transportation benefits for potential modifications to the Federal deep-draft navigation project. The methods for assessing benefits are documented in the Water Resources Council's Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies, Chapter II - (National Economic Development NED) Benefit Evaluation Procedures (March 10, 1983). The adopted procedures for USACE studies, associated with deep-draft navigation features of water resources plans and projects consist of Section VII of Engineering Regulation (ER) 1105-2-100. One planning model was employed: HarborSym, for channel-widening benefits.

HarborSym Version 0.0.17.0 is the Planning/Economic Model used to evaluate widening benefits for the various alternatives. It is a simulation model designed to assist in economic analyses of coastal harbors. With user provided input data, such as the port layout, vessel calls, and transit rules, the model calculates vessel interactions within the harbor.
This model is approved for use, but as yet not certified. The analysis is being done in-house with brokering support from Mobile District.

There is no spreadsheet model employed for channel deepening economic benefits evaluation, since this is exclusively a widening improvement study.

IWR plan is not used for this study as there are no NER benefits being claimed.

Habitat Equivalency Analysis (HEA), developed by National Oceanographic and Atmospheric Administration (NOAA), is a method to determine the necessary mitigation to compensate for interim loss of services. However, HEA is not currently approved for use. The DDNPCX is requested to review and approve application of this model, since its use is required by the NOAA. It may be that the DDNPCX will need to coordinate review and approval through the ECO-PCX.

6. REVIEW SCHEDULES AND COSTS

Schedule.

ATR of FSM Package	Completed 2006
ATR of AFB Package	Completed 2007
ATR of Draft Report	Completed 2008
Revise Draft #2	9/17/2010
Revised Draft GRR ATR and Model Review	10/20/2010
Cost Risk Analysis	11/19/2010
Review Plan SAD/HQ Review and IEPR Decision	12/1/2010
Submit Draft #2 to SAD	11/22/2010
SAD QA Review	12/6/2010
HQ Review	1/19/2011
IPR	2/13/2011
IEPR SOW Prepare and Contract prep	3/1/2011
Receive PGM guidance	3/6/2011
Incorporate Comments	3/27/2011

Transmit Revised Draft	3/27/2011
Receive permission to release	4/26/2011
Public Review	6/10/2011
IEPR Contract NTP and Address Comments	8/24/2011
Address & Incorporate Public Cmnts	7/10/2011
Draft Final GRR ATR	9/23/2011
WQC Final	9/23/2011
Signed Fonsi, Report Final	10/23/2011
Legal Cert, DeBrief, rpt to SAD	11/22/2011
Initiate PED	11/22/2011
EPA concurrence for offshore disposal	11/22/2011
Rpt SAD to HQ (no Chiefs Rpt needed)	12/7/2011
Memo (in lieu of Chiefs rpt) Complete	12/22/2011
MSC Final Report Submitted to ASA	1/5/2012
Final Rpt signed by ASA(includes OMB review)	5/4/2012

Cost.

Revised Draft GRR ATR estimated $45,000.

Model review/approval will be part of the above ATR. Cost is included.

IEPR of Revised Draft GRR estimated $200,000

Draft Final GRR ATR estimated $20,000.

7. PUBLIC PARTICIPATION

Public involvement is anticipated throughout the preparation of the Decision Document. Public information meetings are conducted to inform the general public, other federal and state agencies and interested stakeholders of the status of the project and alternatives being considered. At a minimum, public meetings have/will be conducted as part of the National Environment Policy Act (NEPA) compliance process, including: Public scoping meetings and the public review period of the Draft Environmental Assessment.

8. PLANNING CENTER OF EXPERTISE (PCX) COORDINATION

Review plans for decision documents and supporting analyses are coordinated with the appropriate Planning Center(s) of Expertise (PCXs) based on the primary purpose of the basic decision document to be reviewed. The lead PCX for this study is the DDNPCX. While a single-purpose study, the DDNPCX may need to coordinate with the ECO-PCX for approval of application of environmental analysis models. Additionally, the lead PCX will coordinate with the Cost Engineering Directory of Expertise (DX) to conduct ATR of cost estimates, construction schedules and contingencies.

9. MAJOR SUBORDINATE COMMAND (MSC) APPROVAL

South Atlantic Division (SAD), the MSC that oversees the home district, is responsible for approving the review plan. Approval is provided the MSC Commander. The commander's approval should reflect vertical team input (involving district, MSC, PCX, and HQUSACE members) as to the appropriate scope and level of review for the decision document. Like the PMP, the RP is a living document and may

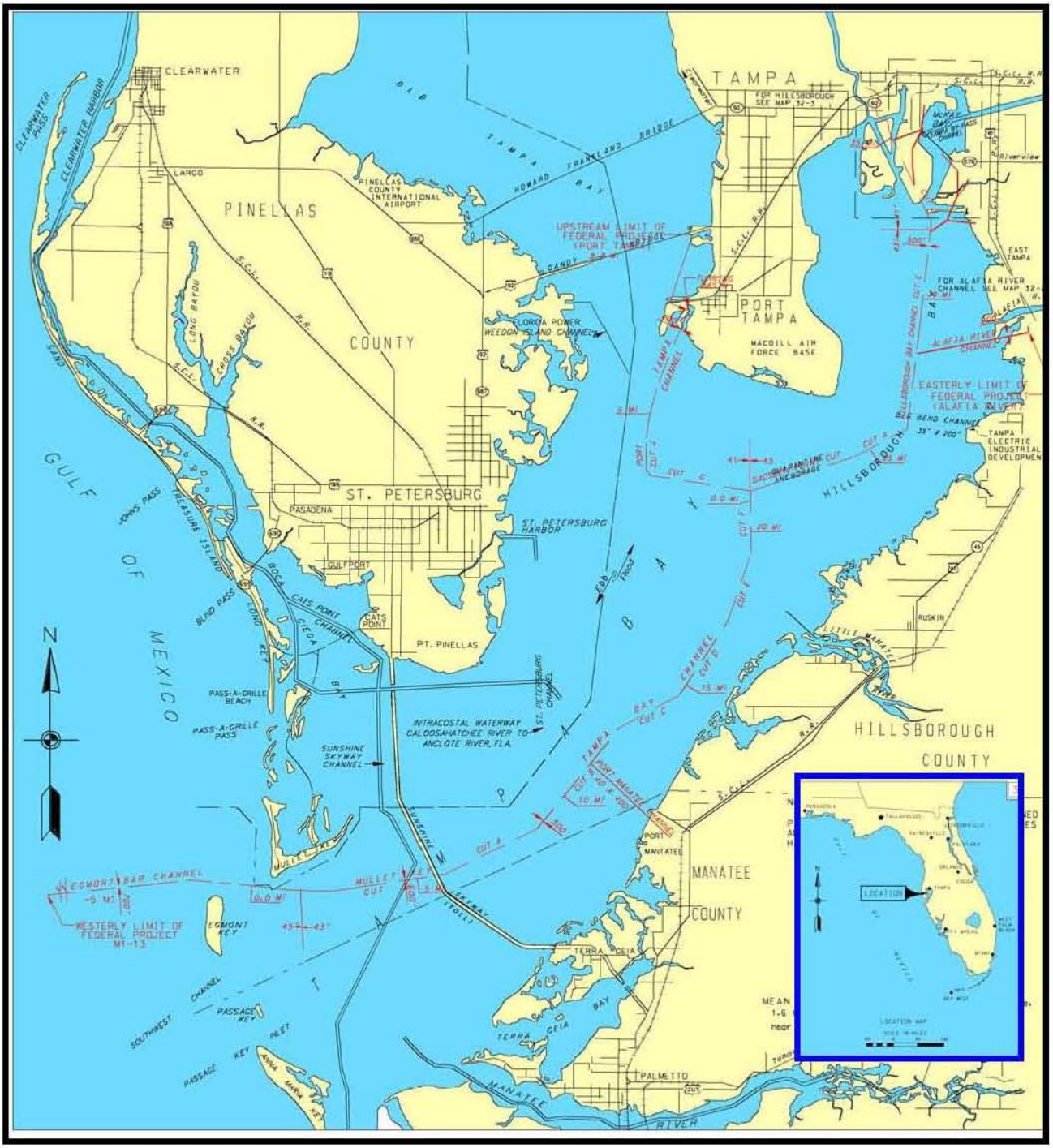
change as the study progresses. Changes to the RP should be approved by following the process used for initially approving the RP. In all cases the MSCs will review the decision on the level of review and any changes made in updates to the project.

10. REVIEW PLAN POINTS OF CONTACT

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

- Project Manager, 909-232-3915
- MSC, 404-562-5228
- PCX, 251-694-3884

Attachment 1 –Tampa Harbor Federal Channel Location Map



Attachment 2 –IEPR Exclusion Approval Documentation

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
WASHINGTON, D.C. 20314-1000

REPLY TO
ATTENTION OF

CECW-SAD

JAN 28 2011

MEMORANDUM FOR Commander, U.S. Army Corps of Engineers, South Atlantic Division (ATTN: CESAD-PDS-P)

SUBJECT: Request for Independent External Peer Review (IEPR) Exclusion for the Tampa Harbor Project, Florida.

1. HQUSACE has reviewed the IEPR exclusion request for the Tampa Harbor Project. Based on applicable laws and policy, this project study is not subject to peer review as it does not meet any of the mandatory requirements. The project has a cost estimate of less than $45 million; does not represent a threat to health and safety; is not controversial; and has not had a request for IEPR from the Governor of an affected State or the head of a Federal or state agency.

2. Approval of the exclusion request was based on the following information. The proposed project consists of widening the existing Federal channel by 100 feet total, on one side, over no more than 10% of the entire Federal channel length. The formulation of this project is not based on novel methods and does not present complex challenges for interpretation or conclusions that are likely to change prevailing practices. Precedent-setting methods or models were not used in the evaluation. The total cost is approximately $23 million and the average annual costs are $1.6 million, including operation and maintenance and interest during construction. The dredged material disposal area is the existing Tampa Ocean Dredged Material Disposal Site and an Environmental Impact Statement (EIS) is not required.

3. Questions or concerns should be directed to Ms. Stacey Brown, Deputy Chief, South Atlantic Division Regional Integration Team, at 202-761-4106.

FOR THE COMMANDER:

STEVEN L. STOCKTON, P.E.
Director of Civil Works

DEPARTMENT OF THE ARMY
SOUTH ATLANTIC DIVISION, CORPS OF ENGINEERS
ROOM 9M15, 60 FORSYTH ST., S.W.
ATLANTA GA 30303-8801

REPLY TO
ATTENTION OF

CESAD-PDS-P

20 OCT 2010

MEMORANDUM FOR HQ USACE (CECW-SAD-RIT/Stacey Brown)

SUBJECT: General Re-evaluation Study, Tampa Harbor Project, Florida – Request for Exclusion from Type I Independent External Peer Review (IEPR)

1. Reference memorandum CESAJ-PD, 5 October 2010, subject: General Re-evaluation Study, Tampa Harbor Project, Florida – Request for Exclusion from Type I Independent External Peer Review (IEPR).

2. The South Atlantic Division endorses the Jacksonville District's request for exclusion from Type I Independent External Peer Review (IEPR). Copies of Jacksonville District's Justification for exclusion from IEPR, a Project Executive Summary, the Peer Review Plan, Deep Draft Navigation Center of Expertise determination of PRP completeness, and Jacksonville District request for PRP approval are also provided as attachments. SAD has reviewed the Peer Review Plan and concluded we would likely approve it and the request for exclusion from IEPR if it were within out authority to do so.

3. The point of contact for this action is Mr. Terry Stratton at (404) 562-5228.

Encl

WILBERT V. PAYNES
Chief, Planning and Policy
Community of Practice