



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
US ARMY ENGINEER DIVISION, SOUTHWESTERN
1100 COMMERCE STREET, SUITE 831
DALLAS TX 75242-1317

CESWD-PDP

31 OCT 2012

MEMORANDUM FOR Commander, Galveston District

SUBJECT: Jacintoport Channel at Houston Ship Channel, Texas, Assumption of Maintenance (PWI # 136037) Review Plan Approval

1. References:

a. Change 1, 31 January 2012 to EC 1165-2-209, Civil Works Review Policy, 31 January 2010.

b. Memorandum, CESWG-PE-P, 12 April 12, subject: Request for Exclusion from Type I Independent Peer Review (IEPR) for Jacintoport Assumption of Maintenance (AoM) (PWI# 136037).

c. Memorandum, CESWD-PDP, 22 May 2012, subject: Jacintoport Channel at Houston Ship Channel, Texas, Assumption of Maintenance (PWI # 136037) - Request for Exclusion from Independent External Peer Review (Encl 1).

d. Email, CEMP-SWD, Yvonne Haberer, 22 June 2012, subject: Jacintoport IEPR exclusion request (Encl 2).

2. In accordance with 1.a., I hereby approve the enclosed Review Plan (RP) with exclusion from Type I IEPR, subject to the RP being updated in para. 5 and 7.b. to state that IEPR exclusion has been approved by Headquarters, USACE for the subject project study.

3. Reference 1.d. approves the IEPR exclusion request.

4. Please post the final approved RP with a copy of this memorandum to the District's public internet website and provide the internet address to the Deep Draft Navigation Planning Center of Expertise and Southwestern Division. Before posting to the District website, the names of USACE employees should be removed.

CESWD-PDP

SUBJECT: Jacintoport Channel at Houston Ship Channel, Texas, Assumption of Maintenance (PWI # 136037) Review Plan Approval

5. The SWD point of contact for this action is Mr. Saji Varghese, CESWD-PDP, at 469-487-7069.

2 Encls
as



THOMAS W. KULA
Brigadier General, USA
Commanding

CF:
SWG-PE-P/ Heinly (w/encls)

REVIEW PLAN

Jacintoport Channel at Houston Ship Channel, Texas Assumption of Maintenance Decision Document

Galveston District

MSC Approval Date: 31 October 2012

Last Revision Date: 1 October 2012



**US Army Corps
of Engineers** ®

REVIEW PLAN

**Jacintoport Channel, Texas
Assumption of Maintenance Decision Document**

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1. PURPOSE AND REQUIREMENTS

a. **Purpose.** This Review Plan defines the scope and level of peer review for the Jacintoport Channel, Texas, Assumption of Maintenance Feasibility Study.

b. References

- (1) Engineering Circular (EC) 1165-2-209, Civil Works Review Policy, 31 January 2010
- (2) EC 1105-2-412, Assuring Quality of Planning Models,
- (3) Engineering Regulation (ER) 1110-2-12, Quality Management, 30 Sep 2006
- (4) ER 1105-2-100, Planning Guidance Notebook, Appendix H, Policy Compliance Review and Approval of Decision Documents, Amendment #1, 20 Nov 2007
- (5) Jacintoport Channel Assumption of Maintenance Feasibility Study PMP, Sep 2009

c. **Requirements.** This review plan was developed in accordance with EC 1165-2-209, which establishes an accountable, comprehensive, life-cycle review strategy for Civil Works products by providing a seamless process for review of all Civil Works projects from initial planning through design, construction, and operation, maintenance, repair, replacement and rehabilitation (OMRR&R). The EC outlines four general levels of review: District Quality Control/Quality Assurance (DQC), Agency Technical Review (ATR), Independent External Peer Review (IEPR), and Policy and Legal Compliance Review. In addition to these levels of review, decision documents are subject to cost engineering review and certification (per EC 1165-2-209) and planning model certification/approval (per EC 1105-2-412). 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 U.S Army Corps of Engineers Deep Draft Navigation Planning Center of Expertise located in Mobile District.

The RMO will coordinate with the Cost Engineering Directory of Expertise (DX) to ensure the appropriate expertise is included on the review teams to assess the adequacy of cost estimates, construction schedules and contingencies.

- (1) District Quality Control/Quality Assurance (DQC). All **decision documents** (including supporting data, analyses, environmental compliance documents, etc.) shall undergo DQC. DQC is an internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the Project Management Plan (PMP). The home district shall manage DQC. Documentation of DQC activities is required and should be in accordance with the Quality Manual of the District and the home Major Subordinate Command (MSC).
- (2) Agency Technical Review (ATR). ATR is mandatory for all **decision documents** (including supporting data, analyses, environmental compliance documents, etc.). The objective of ATR is to ensure consistency with established criteria, guidance, procedures, and policy. The ATR will assess whether the analyses presented are technically correct and comply with published US Army Corps of Engineers (USACE) guidance, and that the document explains the analyses and results in a reasonably clear manner for the public and decision makers. ATR is managed within USACE by a designated Risk Management Organization (RMO) and is conducted by a qualified team from outside the home district that is not involved in the day-to-day production of the project/product. ATR teams will be comprised of senior USACE

personnel and may be supplemented by outside experts as appropriate. To assure independence, the leader of the ATR team shall be from outside the home MSC.

- (3) Independent External Peer Review (IEPR). IEPR may be required for **decision documents** under certain circumstances. IEPR is the most independent level of review, and is applied in cases that meet certain criteria where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside of USACE is warranted. A risk-informed decision, as described in EC 1165-2-209, is made as to whether IEPR is appropriate. IEPR panels will consist of independent, recognized experts from outside of the USACE in the appropriate disciplines, representing a balance of areas of expertise suitable for the review being conducted. There are two types of IEPR: Type I is generally for decision documents and Type II is generally for implementation products.
 - (a) Type I IEPR. Type I IEPR reviews are managed outside the USACE and are conducted on project studies. Type I IEPR panels assess the adequacy and acceptability of the economic and environmental assumptions and projections, project evaluation data, economic analysis, environmental analyses, engineering analyses, formulation of alternative plans, methods for integrating risk and uncertainty, models used in the evaluation of environmental impacts of proposed projects, and an biological opinions of the project study. Type I IEPR will cover the entire decision document or action and will address all the underlying engineering, economics, and environmental work, not just one aspect of the study. For decision documents where a Type II IEPR (Safety Assurance Review) is anticipated during project implementation, safety assurance shall also be addressed during the Type I IEPR per EC 1165-2-209.
 - (b) Type II IEPR. Type II IEPR, or Safety Assurance Review (SAR), are managed outside the USACE and are conducted on design and construction activities for hurricane, storm, and flood risk management projects or other projects where existing and potential hazards pose a significant threat to human life. Type II IEPR panels will conduct reviews of the design and construction activities prior to initiation of physical construction and, until construction activities are completed, periodically thereafter on a regular schedule. The reviews shall consider the adequacy, appropriateness, and acceptability of the design and construction activities in assuring public health safety and welfare.
- (4) Policy and Legal Compliance Review. All **decision documents** will be reviewed throughout the study process for their compliance with law and policy. Guidance for policy and legal compliance reviews is addressed in Appendix H, ER 1105-2-100. These reviews culminate in determinations that the recommendations in the reports and the supporting analyses and coordination comply with law and policy, and warrant approval or further recommendation to higher authority by the Chief of Engineers. DQC and ATR augment and complement the policy review processes by addressing compliance with pertinent published Army policies, particularly policies on analytical methods and the presentation of findings in decision documents.
- (5) Cost Engineering Review and Certification. All **decision documents** shall be coordinated with the Cost Engineering Directory of Expertise (DX), located in the Walla Walla District. The DX, or in some circumstances regional cost personnel that are pre-certified by the DX, will conduct the cost ATR. The DX will provide certification of the final total project cost.

- (6) Model Certification/Approval. EC 1105-2-412 mandates the use of certified or approved models for all planning activities to ensure the models are technically and theoretically sound, compliant with USACE policy, computationally accurate, and based on reasonable assumptions. Planning models, for the purposes of the EC, are defined as any models and analytical tools that planners use to define water resources management problems and opportunities, to formulate potential alternatives to address the problems and take advantage of the opportunities, to evaluate potential effects of alternatives and to support decision making. The use of a certified/approved planning model does not constitute technical review of the planning product. The selection and application of the model and the input and output data is still the responsibility of the users and is subject to DQC, ATR, and IEPR. EC 1105-2-412 does not cover engineering models used in planning. The responsible use of well-known and proven USACE developed and commercial engineering software will continue and the professional practice of documenting the application of the software and modeling results will be followed. Engineering models are also subject to DQC, ATR, and IEPR.

2. STUDY INFORMATION

- a. **Decision Document.** The Jacintoport Channel, originally constructed by the U.S. Army, is currently maintained by the Port of Houston Authority (PHA). The original Department of Army (DA) Permit 18576 (USACE 1988) was issued authorizing hydraulic dredging for the Jacintoport Channel. The first amendment, Permit 18576(01) (USACE 1994), extended the time of the project to 1998, while increasing the depth of maintenance from 38 to 40 feet MLT. The second amendment, Permit 18576(02) (USACE 1997), extended the timeframe for completion of work to December 2004 and authorized use of Lost Lake as a placement area (PA). The RMO is responsible for managing the overall peer review effort described in this Review Plan. Approval authority for the Assumption of Maintenance Report is the Assistant Secretary of the Army for Civil Works ASA (CW).

The Federal Assumption of Maintenance was initiated by a December 2007 memorandum from the PHA to the U.S. Army Corps of Engineers (USACE) for "Request for Assumption of Maintenance for Jacintoport Channel and Bayport Cruise Channel and Turning Basin" (PHA 2007a). This request was based upon a third amendment of Permit No. 18576 (03) to add mechanical, water injection, and silt blade dredging as approved methods of maintenance over a 10-year time period, along with the authorization of Peggy Lake PA and Alexander Island PA (USACE 2006a).

Section 101(a) (30) of the Water Resources and Development Act (WRDA) of 1996 authorized deepening of the Houston Ship Channel (HSC) to 45 feet MLT. There are several non-Federal channels that branch off of the Federal HSC, which were constructed and maintained by the PHA or other private interests. The Jacintoport Channel provides access to the Jacintoport Terminal, owned by the PHA, and the privately-owned Inbesa American, Inc. and Houston Fuel Oil (HFO) terminals. Section 5001 of WRDA 2007 directs the USACE to evaluate a Federal AOM for the non-Federal Jacintoport Channel (USACE 2009).

After evaluating the permits issued for the channel, the USACE made a determination that an EA would be necessary for the assumption of maintenance effort.

b. Study/Project Description. The main portion of the Jacintoport Channel is maintained to a depth of 40 feet MLT; with the Jacintoport Plateau maintained to 39 feet MLT and the Houston Fuel Oil (HFO) berthing area maintained to a depth of 45 feet MLT. The Jacintoport Terminal and Inbesa Terminal berthing areas are currently at a depth of 40 feet MLT and 34 feet MLT, respectively. The northern half of the Jacintoport channel adjacent to the HFO dock is maintained to a depth of 45 feet MLT from the entrance to approximately Station 29+00 and is used for access to the HFO Terminal. The HFO pays for the additional 5 feet of dredging depth. Figure 1 displays the Jacintoport Channel and its relative vicinity to the HSC.

Based on dredging documents received from the PHA, Jacintoport Channel maintenance dredging occurs approximately every three to five years; including Jacintoport Channel, Inbesa Terminals, and the Jacintoport Plateau. Records indicate that the last dredging event occurred in August 2006. It is estimated that the annual cost to maintain Jacintoport Channel is \$282,000. The HFO Terminal is dredged by HFO more frequently than the rest of the Jacintoport Channel. The HFO also dredges portions of the main Jacintoport Channel to 45 feet MLT as needed.

c. Factors Affecting the Scope and Level of Review. The Jacintoport Channel is a previously constructed channel and the proposed action is Federal assumption of maintenance. There are no changes proposed for the channel or placement activities associated with maintenance dredging. There are no expected areas of controversy, risk or significant non-Federal interest for this study and congressional authorization is not necessary.

d. In-Kind Contributions. Products and analyses provided by non-Federal sponsors as in-kind services are subject to DQC, ATR, and IEPR. The in-kind products and analysis to be provided by the non-Federal sponsor include: *There are no expected in-kind activities proposed by the sponsor.*

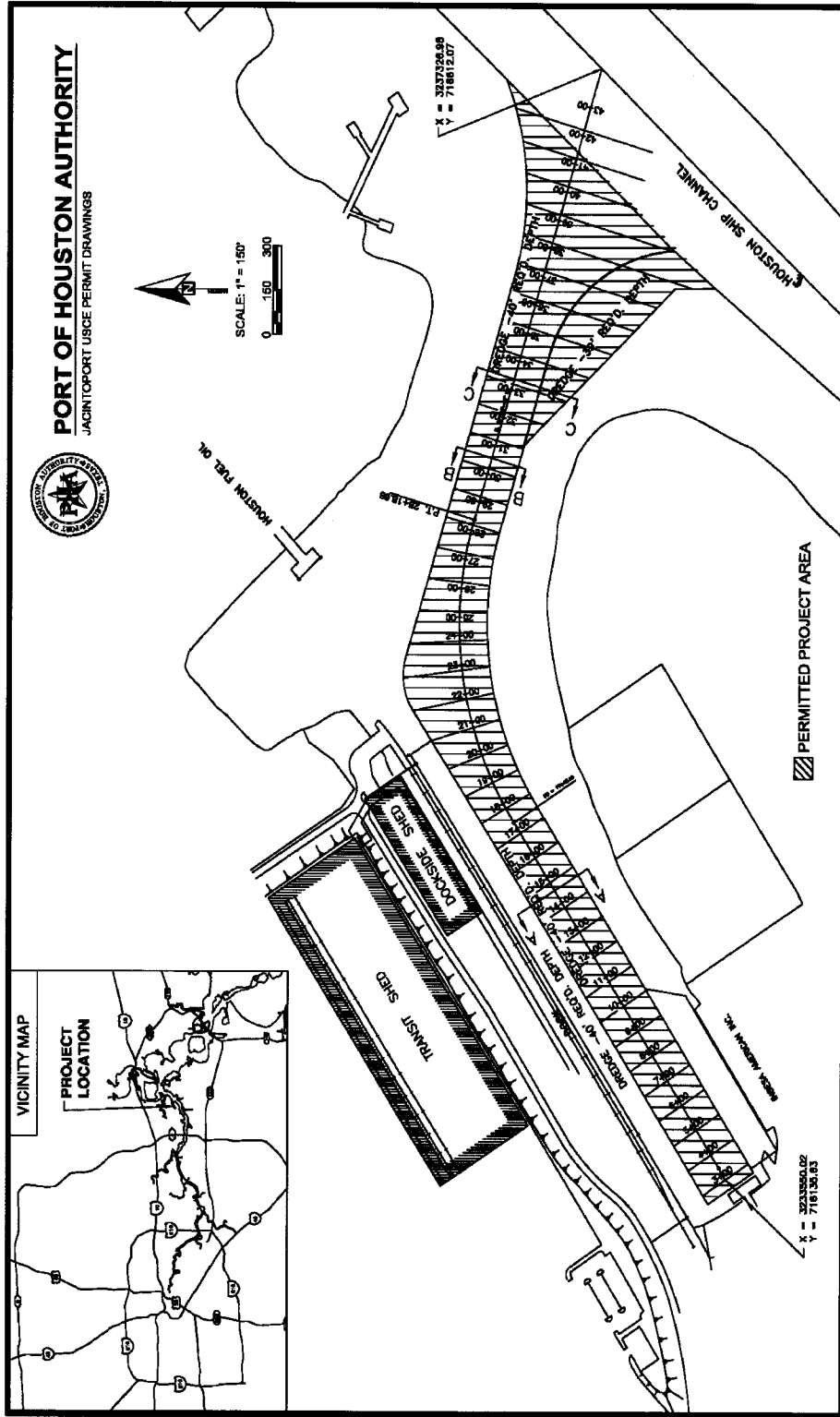


Figure 1. Site location of Jacintoport Channel

3. DISTRICT QUALITY CONTROL (DQC)

- a. **Documentation of DQC.** DQC is the review of basic science and engineering work products focused on fulfilling the project quality requirements. It is managed by the Galveston 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 (QMP) providing for seamless review, quality checks and reviews, supervisory reviews, 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. For the Jacintoport Channel Assumption of Maintenance, non-PDT members and/or supervisory staff will conduct this review for major draft and final products, including products provided by the non-Federal sponsors as in-kind services following review of those products by the PDT. It is expected that the Major Subordinate Command (MSC)/District QMP addresses the conduct and documentation of this fundamental level of review. DQC is not addressed further in the Review Plan.

4. AGENCY TECHNICAL REVIEW (ATR)

- a. **Products to Undergo ATR.** The only products to undergo ATR will be the draft Decision Document and Environmental Assessment. This study is a proposed assumption of maintenance of an existing channel so no additional products will require ATR.
- b. **Required ATR Team Expertise.**

ATR Team Members/Disciplines	Expertise Required
ATR Lead	The ATR lead should be a senior professional with extensive experience in preparing Civil Works decision documents and conducting ATR. The lead should also have the necessary skills and experience to lead a virtual team through the ATR process. Typically, the ATR lead will also serve as a reviewer for a specific discipline (such as planning, economics, environmental resources, etc).
Planning	The Planning reviewer should be a senior water resources planner with experience in deep-draft navigation.
Economics	The Economics reviewer should be an economist with experience in deep-draft navigation.
Environmental Resources	The Environmental Resources reviewer should be a reviewer with experience in deep-draft navigation.
Real Estate	The Real Estate reviewer should be a reviewer with experience in deep-draft navigation.

- c. **Documentation of ATR.** DrChecks review software will be used to document all ATR comments, responses and associated resolutions accomplished throughout the review process. Comments

should be limited to those that are required to ensure adequacy of the product. The four key parts of a quality review comment will normally include:

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

In some situations, especially addressing incomplete or unclear information, comments may seek clarification in order to then assess whether further specific concerns may exist.

The ATR documentation in DrChecks will include the text of each ATR concern, the PDT response, a brief summary of the pertinent points in any discussion, including any vertical team coordination (the vertical team includes the district, RMO, MSC, and HQUSACE), and the agreed upon resolution. If an ATR concern cannot be satisfactorily resolved between the ATR team and the PDT, it will be elevated to the vertical team for further resolution in accordance with the policy issue resolution process described in either ER 1110-2-12 or ER 1105-2-100, Appendix H, as appropriate. Unresolved concerns can be closed in DrChecks with a notation that the concern has been elevated to the vertical team for resolution.

At the conclusion of each ATR effort, the ATR team will prepare a Review Report summarizing the review. Review Reports will be considered an integral part of the ATR documentation and shall:

- Identify the document(s) reviewed and the purpose of the review;
- Disclose the names of the reviewers, their organizational affiliations, and include a short paragraph on both the credentials and relevant experiences of each reviewer;
- Include the charge to the reviewers;
- Describe the nature of their review and their findings and conclusions;
- Identify and summarize each unresolved issue (if any); and
- Include a verbatim copy of each reviewer's comments (either with or without specific attributions), or represent the views of the group as a whole, including any disparate and dissenting views.

ATR may be certified when all ATR concerns are either resolved or referred to the vertical team for resolution and the ATR documentation is complete. The ATR Lead will prepare a Statement of Technical Review certifying that the issues raised by the ATR team have been resolved (or elevated to the vertical team). A Statement of Technical Review should be completed, based on work reviewed to date, for the AFB, draft report, and final report. A sample Statement of Technical Review is included in Attachment 2.

5. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)

Decision on IEPR. IEPR exclusion has been approved by Headquarters, USACE for the subject project study. The study is only an Assumption of Maintenance for a one-mile-long channel that branches off the Houston Ship Channel. The study proposes the COE assume the maintenance of approximately 23,000 cubic yards of dredge material per year. The total cost per dredge event (every three years) is estimated to be \$1.4 million. This process considered the consequences of non-performance of Type I IEPR on project economics, the environment, and social well-being (public safety and social justice), given the routine and non-controversial nature of the proposed action. It was concluded that the study is so limited in scope and impact that it would not significantly benefit from IEPR. The AoM is an activity for which there is ample experience within the USACE and industry to treat the activity as being routine and there is no life safety risk. Also, the action is so limited in scope or impact that it would not significantly benefit from IEPR. Due to the nature of this study as an Assumption of Maintenance report, District representatives are requesting a variance on the requirement to conduct a Type I IEPR. The factors necessary to determine the appropriate scope and level of review for the Jacintoport AoM decision document are 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 “mandatory triggers” were evaluated to determine whether Type I IEPR should be undertaken on the Jacintoport AoM Study.

- i) **Is there a significant threat to human life?** No significant threat to human life exists. The project involves assuming the maintenance of an existing navigation channel.
- ii) **Does the estimated total cost of the project, including mitigation costs, exceed \$45 million?** No. The estimated project cost is \$1.4 million for dredging the channel every 3 years and preliminary reviews by the ATR review team have not identified any significant issues with the project cost estimate likely to result in a cost increase beyond \$45 million.
- iii) **Has the Governor of the affected State (Texas) requested a peer review by independent experts?** No.
- iv) **Has the Chief of Engineers determined that the project study is controversial due to significant public dispute over the size, nature, or effects of the project or the economic or environmental costs or benefits of the project?** No. In addition, the public involvement process conducted by the Port of Houston and USACE Galveston District has not identified any controversy regarding the proposed project.
- v) **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. No mitigation has either been proposed or requested.

In summary, the Jacintoport AoM Study does not invoke any of the mandatory triggers requiring IEPR.

Compliance with Paragraph 15, of EC 1165-2-209, Risk-Informed Decisions on Appropriate Reviews, is discussed below. None of the criteria identified in EC 1165-2-209 indicating the need for IEPR were met.

ER 1165-2-209 states that a project study may be excluded from Type I IEPR by the Chief of Engineers in cases where none of the above mandatory triggers are met and the following conditions also apply, which are evaluated below.

- a) It does not include an EIS, and the Chief determines that the project:**
- b) Is not controversial; and**
- c) Has no more than negligible impact on scarce or unique tribal, cultural, or historic resources;**
- d) Has no substantial adverse impacts on fish and wildlife species and their habitat prior to the implementation of mitigation measures; and**
- e) Has, before implementation of mitigation measures, no more than a negligible 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.**

In response to these IEPR exclusion conditions, the Jacintoport AoM Study meets all requirements for exclusion. Specifically, the proposed project:

- includes an Environmental Assessment, not an EIS;
- has no impact on scarce or unique tribal, cultural, or historic resources;
- Has no substantial adverse impacts on fish and wildlife species and no required mitigation measures; and
- Has negligible adverse temporary, construction-related impacts on species listed as endangered or threatened species or the critical habitat of such species.

Evaluations of individual decision criteria are discussed in the following paragraphs.

Technical, institutional, and social challenges?

The proposed project does not appear to involve any significant challenges. Dredging methods are standard and have been applied numerous times at the Jacintoport Channel for past O&M dredging. All institutional requirements are in place and have been utilized for past projects. No social impacts or challenges are anticipated.

Unusually high risk or magnitude indicated?

The proposed project does not appear to include risks that are greater than normally would be expected for a deep draft navigation O&M dredging project. As well, the total project

cost is not expected to exceed the proposed trigger of \$45 million. Preliminary reviews by the Cost Estimating ATR team have not identified any significant issues with the project cost estimate likely to result in a cost increase beyond \$45 million. The primary source of uncertainty was the impact of dredge fuel costs on the project cost estimate, and this has been incorporated into the calculation of contingencies.

Likelihood of influential scientific information or highly influential scientific assessments?

The proposed project is a proposed assumption of maintenance of an existing navigation channel and has not produced influential scientific information or required any non-standard scientific assessments.

Likelihood of the project having significant economic, environmental, and/or social effects to the Nation?

The project does not have significant economic, environmental, or social effects on the Nation. While the project BCR is positive, the relatively small size of the project (\$1.4 million every three years) will have negligible effects on the national economy. Environmental and social effects are not significant, as is documented in the Draft Environmental Assessment.

Is the project/study likely to have significant interagency interest?

All relevant Federal and state agencies have been contacted and coordinated with throughout the AoM study process. Inter-agency coordination conducted to date has indicated no significant interagency interest.

Is there a significant threat to human life / safety?

No significant threat to human life exists. The project involves Assumption of Maintenance of an existing navigation channel using safe and proven methods.

Is the project highly controversial?

Public and agency involvement and coordination conducted from the initiation of the study has indicated no public controversy whatsoever associated with the proposed navigation improvements at the Jacintoport Channel.

Study conclusions based upon novel methods?

Study conclusions are based on standard methods typically employed on all deep draft navigation projects, and do not appear to warrant IEPR on this basis.

Study conclusions present complex challenges for interpretation?

The study conclusions for this project (assumption of maintenance of an existing navigation channel), are typical conclusions for a deep draft navigation project and do not present complex challenges for interpretation.

Study conclusions contain precedent-setting methods or models?

Well established analytical methods and models were employed and are not considered precedent-setting.

Study conclusions likely to change prevailing practices?

Study conclusions are typical of a deep draft navigation project and involve standard practices for assuming the dredge maintenance of the existing navigation channel to accommodate vessels. There will be no change in prevailing practices.

- b. Products to Undergo Type I IEPR.** IEPR exclusion has been approved by Headquarters, USACE for the subject project study.
- c. Required Type I IEPR Panel Expertise.** IEPR exclusion has been approved by Headquarters, USACE for the subject project study.
- d. Documentation of Type I IEPR.** IEPR exclusion has been approved by Headquarters, USACE for the subject project study.

6. MODEL CERTIFICATION AND APPROVAL

- a. Planning Models.** An Excel type spread sheet was used to document and display economic data for this project. The DDPCX staff has reviewed and certified the model description document.
- b. Engineering Models.** No Engineering Models are proposed for use in this study.

7. REVIEW SCHEDULES AND COSTS

- a. ATR Schedule and Cost.** The Deep-Draft PCX coordinated the ATR that was executed in June 2010 and was completed in July 2010 at a total cost of \$45K.
- b. Type I IEPR Schedule and Cost.** IEPR exclusion has been approved by Headquarters, USACE for the subject project study.
- b. Model Certification/Approval Schedule and Cost.** An Economic planning model is the only model certification that is required for this study. Model review plan has been submitted to the DDNPCX. The economic model description is currently being reviewed by a DDNPCX representative.

8. PUBLIC PARTICIPATION

The Environmental Assessment was coordinated with the public and resource agencies for a 30-day period.

9. 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 Planning Center of Expertise for Deep-Draft Navigation.

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

10. REVIEW PLAN APPROVAL AND UPDATES

The Southwestern Division Commander is responsible for approving this Review Plan. The Commander's approval reflects vertical team input (involving district, MSC, RMO, and HQUSACE members) as to the appropriate scope and level of review for the decision document. Like the PMP, the Review Plan is a living document and may change as the study progresses. The home district is responsible for keeping the Review Plan up to date. Significant changes to the Review Plan (such as changes to the scope and/or level of review) should be re-approved by the MSC Commander following the process used for initially approving the plan. The latest version of the Review Plan, along with the Commanders' approval memorandum, should be posted on the Home District's webpage. The latest Review Plan should also be provided to the RMO and home MSC.

11. REVIEW PLAN POINTS OF CONTACT

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

- Robert Heinly, SWG-PE-PL Chief, Planning Section, 409-766-3992
- Jake Walsdorf, SWG-PE-PL Planning Lead, 409-766-3817
- Bernard Moseby, ATR Team Lead, 251-694-3884
- Saji Varghese, CESWD-PDP, 469-487-7069

ATTACHMENT 1: ACRONYMS AND ABBREVIATIONS

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