

**PROJECT REVIEW PLAN**

**MOORING BASIN MODIFICATIONS**  
**GULF INTRACOASTAL WATERWAY, TEXAS**  
**OPERATIONS AND MAINTENANCE DISCRETIONARY AUTHORITY**  
**DECISION DOCUMENT**

**U.S. Army Corps of Engineers**  
**Galveston District**

**MSC Approval Date: Pending**

**Last Revision Date: November 27, 2012**

**November 2012**

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**MOORING BASIN MODIFICATIONS  
GULF INTRACOASTAL WATERWAY, TEXAS  
OPERATIONS AND MAINTENANCE DISCRETIONARY AUTHORITY  
DECISION DOCUMENT  
REVIEW PLAN**

**1. PURPOSE AND REQUIREMENTS**

**a. Purpose:**

Pursuant to Engineering Circular (EC) 1165-2-209, Civil Works Review Policy; EC 1105-2-412, Assuring Quality of Planning Models; ER 1110-1-12, Quality Management; and ER 1105-2-100, Planning Guidance Notebook, Appendix H, Policy Compliance Review and Approval of Decision Documents, Amendment #1, a Project Review Plan (RP) has been developed for the Mooring Basin Modifications, Gulf Intracoastal Waterway (GIWW), Texas Navigation Project. As a result of the preliminary screening, it was apparent that the feasible alternative for the project was going to be modification of mooring basin facilities at selected locations along the GIWW. Considering the small scale of the project, it was decided to request conducting the project under the Operations and Maintenance Discretionary Authority.

**b. References:**

- 1) Engineering Circular (EC) 1165-2-209, Civil Works Review Policy, Change #1, dated 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, 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) EC 1105-2-407, Planning Models Improvement Program
- 6) Project Management Plan, GIWW Mooring Basin Modifications, Texas, Discretionary Authority Study
- 7) Galveston 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 (per EC1165-2-209) and planning model certification/approval (per EC 1105-2-412).

## 2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION

The RMO is responsible for managing the overall peer review effort described in this RP. 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 RP is the PCXIN (LRD).

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

## 3. STUDY INFORMATION

**a. Decision Document.** The Mooring Basin Modification, Gulf Intracoastal Waterway, Texas O&M Discretionary Authority study will result in a decision document that will not require Congressional authorization. The report will be approved by HQUSACE. The study authority reads: This Draft Decision Document is conducted under the provisions outlined in Engineer Regulation (ER) 1130-2-520 which provides that O&M funds may be used for increases in navigation dimensions at entrances, bends, sidings and turning places within a project to allow for free movement of boats in accordance with provisions of Section 5 of the River and Harbor Act of 14 March 1915 (33 USC 562), Section 117 of the River and Harbor Act of 13 August 1968, PL 90-483, (33 USC 562a), Section 3 of the River and Harbor Act of 1945 (33 USC 603a), or Section 224 of PL 102-580 (33 USC 2201), and shall be approved by Head Quarters, United States Army Corps of Engineers (see para. 8-2, a, [8]). The proposed study will address the feasibility of making modifications to the existing mooring basins along the GIWW. The study will also include an Environmental Assessment. The approval level for the report is Chief, Operations, Directorate of Civil Works, HQUSACE.

**b. Study/Project Description.** The Gulf Intracoastal Waterway (GIWW) system is an existing navigation project located along the southern coast of the United States coast between Florida and the intersection with the Brownsville, Texas Ship Channel. The existing project provides for a 12-foot by 125-foot channel. The GIWW is an important waterway for transporting products along the southern United States.

The Texas Department of Transportation (TxDOT) is the non-Federal sponsor. The GIWW is a designated Inland Waterway and therefore a cost sharing agreement is not required. The study will be funded 100% by the U.S. Government with Operation and Maintenance funding at an estimated cost of \$300,000.

The issue of safe navigation of selected reaches of the GIWW has been identified by inland waterway users. As a result of this issue, the United States Army Corps of Engineers (USACE) Galveston District is investigating whether modifications to the selected existing mooring basins is necessary and whether commercial navigation benefits produced by modifying the mooring basins are sufficient to offset the costs and environmental consequences of the proposed change. The project area is shown on Figure 1, encompassing the existing channels and mooring basin facilities modification.

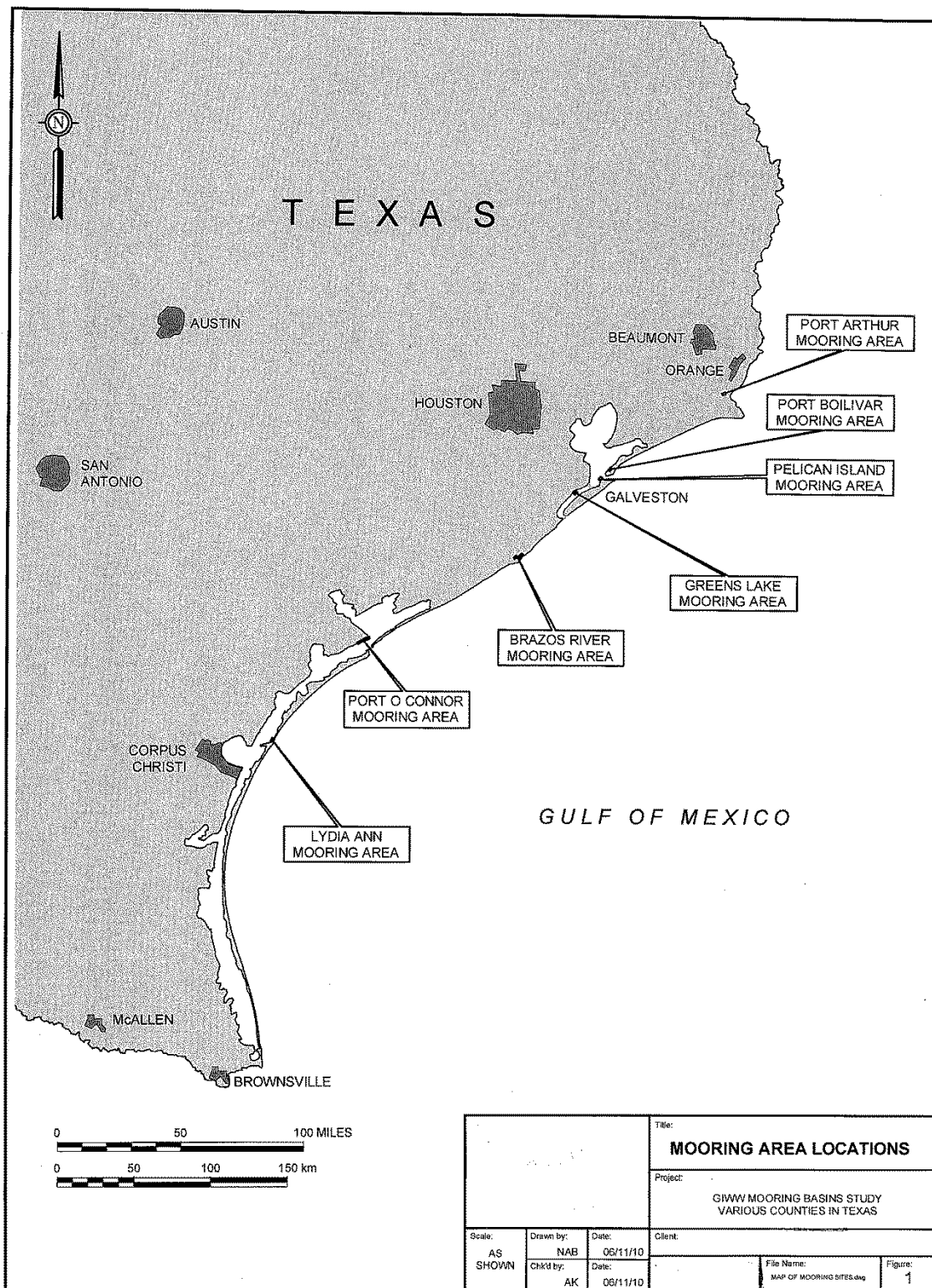


Figure 1

### **c. Factors Affecting the Scope and Level of Review**

The project is not justified by life safety nor does it involve significant threat to human/life safety assurance or the environment. The project does not pose significant challenges and risks. The project's function serves to provide continued channel mooring facilities for barge traffic associated with industry operations having significant contribution to our Nation's economy. The project is not anticipated to involve significant public dispute and is not based on novel, complex or innovative uses of materials or methods of construction.

### **d. In-kind Contribution.**

No in-kind contributions are expected for the study.

## **4. DISTRICT QUALITY CONTROL (DQC)**

The Project Delivery Team (PDT) is comprised of those individuals directly involved in the development of the decision document. The individual contact information and disciplines of the District PDT are included in Appendix A of this document. All products will undergo ATR.

All decision documents (including supporting data, analyses, environmental compliance documents, etc.) shall undergo DQC. DQC is the internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the Mooring Basin Modifications Project, Operations and Maintenance Discretionary Authority Decision Document PMP. The Galveston District shall manage DQC in accordance with Section 7.1 - Quality Plans in procedure 08504 LRD - QC / QA Procedures for Civil Works in Qualtrax. Documentation of DQC activities is required and should be in accordance with the Quality Manual of the District and the home MSC.

The DQC 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 Mooring Basin Modifications Decision Document, non-PDT members and/or supervisory staff will conduct this review for major draft and final products, including Engineering Report, Economic Write-up, Discretionary Report and Environmental Assessment. It is expected that the Major Subordinate Command (MSC)/District QMP addresses the conduct and documentation of this fundamental level of review. A Quality Control Plan (QCP) is included in the PMP for this study and addresses DQC, which is required for this study

**a. Documentation of DQC.** The DQC reviewer will sign a DQC certificate of completion. The DQC documentation will be provided to the ATR Team for review.

## 5. AGENCY TECHNICAL REVIEW (ATR)

ATR is mandatory for all decision documents (including supporting data, analyses, environmental compliance documents, etc). ATR (which replaces the level of review formerly known as Independent Technical Review [ITR]) is an in-depth review, managed within USACE by the designated RMO, and conducted by a qualified team outside of the home district that is not involved in the day-to-day production of a 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, including the Discretionary Report and Environmental Assessment, and assures 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. EC 1105-2-408 requires that DrChecks (<https://www.projnet.org/projnet/>) be used to document all ATR comments, responses, and associated resolution accomplished. ATR is required for this study.

**a. Products to Undergo ATR.** The Discretionary Authority Report and Environmental Assessment will undergo ATR as well as the Economic Appendix and Engineering Appendix. The ATR process will be conducted throughout the study process. Once the ATR team has been identified, copies of PDT meeting notes will be provided to ATR team for information. ATR participation in PDT meetings on a quarterly basis (at a minimum) will be recommended.

As part of the QCP for the Mooring Basin Decision Document, an ATR team will be formed to perform periodic reviews of the study efforts, including the project assumptions, analyses, and calculations, as needed throughout the planning study process.

The ATR team will meet with PDT members on a quarterly basis or as needed. These quarterly meetings will be documented as required by EC 1165-2-209. Coordination throughout the study will be accomplished through individual contact between the PDT and the ATR team. The ATR will focus on the following:

- Review of the planning study process,
- Review of the methods of analysis and design of the alternatives and recommended plan,
- Compliance with program and NEPA requirements, and
- Completeness of study and support documentation

More detailed ATR information is found in the Plan Formulation and Evaluation Section of the PMP.

**b. Required ATR Team Expertise.** The ATR is best conducted by experienced peers within the same discipline who are not directly involved with the development of the study or project being reviewed. Management of ATR reviews are conducted by professionals outside of the home district. For planning feasibility-level studies the ATR is managed by the appropriate PCX with appropriate consultation with the allied Communities of Practice such as engineering and real estate. The Inland Navigation PCX is responsible for identifying the ATR team members. The Galveston District can provide suggestions on possible reviewers. The ATR team members will reside outside the Galveston District with the ATR team leader from outside the Southwestern

Division. The ATR team has been identified and the names and disciplines of the ATR team will be included in Appendix A of this document.

In addition to the ATR Team Lead/Manager, it is anticipated that the review team will consist of eight reviewers, one from each of the following disciplines: engineering design, hydraulics and hydrology, economics, environmental, real estate, plan formulation, operations and cost engineering. A brief description of the disciplines required for the ATR team are identified below:

1. Engineering Design – the reviewer(s) should have extensive knowledge of channel design for navigation studies
2. Hydraulics and Hydrology – the reviewer(s) should have extensive knowledge of hydrodynamic and ship simulation models/studies.
3. Economics – the reviewer should have a strong understanding of economic models or studies relative to shallow-draft navigation (e.g. the HSC).
4. Environmental – the reviewer(s) should have strong background in coastal ecosystems (e.g. hypersaline, lagoonal, wind-tidal flat system) and Texas environmental laws and regulations.
5. Real Estate – the reviewer should have knowledge in reviewing Real Estate Plans for feasibility studies (e.g. navigation servitude).
6. Plan Formulation – the reviewer(s) should have a strong knowledge in current planning policies and guidance related to planning studies.
7. Operations - the reviewer should have a strong knowledge in current operations of shallow-draft navigation projects.
8. Cost Engineering – the reviewer should have a strong knowledge of the cost estimating practices for 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 been properly followed;
- (3) The significance of the concern – indicate the importance of the concern with regard to its potential impact on the plan selection, recommended plan components, efficiency (cost), effectiveness (function/outputs), implementation responsibilities, safety, Federal interest, or public acceptability; and
- (4) The probable specific action needed to resolve the concern – identify the action(s) that the reporting officers must take to resolve the concern.



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

The ATR documentation in DrChecks will include the text of each ATR concern, the PDT response, a brief summary of the pertinent points in any discussion, including any vertical team coordination (the vertical team includes the district, RMO, MSC, and HQUSACE), and the agreed upon resolution. If an ATR concern cannot be satisfactorily resolved between the ATR team and the PDT, it will be elevated to the vertical team for further resolution in accordance with the policy issue resolution process described in either ER 1110-1-12 or ER 1105-2-100, Appendix H, as appropriate. Unresolved concerns can be closed in DrChecks with a notation that the concern has been elevated to the vertical team for resolution.

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

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

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

## **6. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)**

IEPR may be required for decision documents under certain circumstances. This 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. IEPR is generally for feasibility and reevaluation studies and modification reports with EISs. IEPR is managed by an independent, recognized experts from outside eligible organization (OEO) that is described in Internal Revenue Code Section 501(c)(3), is exempt from Federal tax under section 501(a), of the Internal Revenue Code of 1986; is independent; is free from conflicts of interest; does not carry out or advocate for or against Federal water resources projects; and has experience in establishing and administering IEPR panels. The scope of review will address all the underlying planning, engineering, including safety assurance, economics, and environmental analyses performed, not just one aspect of the project. A risk informed decision, as described in EC 1165-2-209, is made as to whether IEPR is appropriate. There are two types of IEPR:

- Type I IEPR. Type I IEPR reviews are managed outside the USACE and are conducted on project studies. Type I IEPR panels assess the adequacy and acceptability of the economic and environmental assumptions and projections, project evaluation data, economic analysis, environmental analyses, engineering analyses, formulation of alternative plans, methods for integrating risk and uncertainty, models used in the evaluation of environmental impacts of proposed projects, and biological opinions of the project study. Type I IEPR will cover the entire decision document or action and will address all underlying engineering, economics, and environmental work, not just one aspect of the study. For decision documents where a Type II IEPR (Safety Assurance Review) is anticipated during project implementation, safety assurance shall also be addressed during the Type I IEPR per EC 1165-2-209.
  - Type II IEPR. Type II IEPR, or Safety Assurance Review (SAR), are managed outside the USACE and are conducted on design and construction activities for hurricane, storm, and flood risk management projects or other projects where existing and potential hazards pose a significant threat to human life. Type II IEPR panels will conduct reviews of the design and construction activities prior to initiation of physical construction and, until construction activities are completed, periodically thereafter on a regular schedule. The reviews shall consider the adequacy, appropriateness, and acceptability of the design and construction activities in assuring public health safety and welfare.
- a. Decision on IEPR.** Due consideration was given to Paragraph 15 of EC 1165-2-209 as well as Appendix D of the same EC. We do not anticipate that other criteria, such as public safety concerns, significant controversy, a high level of complexity, and significant economic, environmental and social effects to the nation, innovative solutions, or life safety issues will trigger the requirement for IEPR. Lastly, the project may not include an EIS. An Environmental Assessment may be prepared. Type I IEPR is currently anticipated at this time for the Mooring Basin Modifications O&M Discretionary Authority report is currently anticipated at this time., however the determination on the need for IEPR will be further evaluated as the study progresses and as additional information and the results of analyses become available.
- **Mandatory IEPR Triggers** - EC 1165-2-209 identifies four mandatory triggers for Type I IEPRs:
    - Project is a significant threat to human life.
    - Where the estimated total cost of the project, including mitigation costs, is greater than \$45 million.
    - Where the Governor of an affected State requests a peer review by independent experts.
    - Where the Director of Civil Works (DCW) or the Chief of Engineers (CE) determines that the project study is controversial due to significant public dispute over either the size, nature, or effects of the project or the economic or environmental costs or benefits of the project.

A peer review has not been requested by a Governor of an affected State. This project has not resulted in disputes over the size, nature, or effects of the project. Thus, the DCW and CE have not determined that the study is controversial.

- b. Products to Undergo Type I IEPR.** The IEPR panel will review the entire draft report, including environmental documentation and all technical appendices.
- c. Required Type I IEPR Panel Expertise.** IEPR panels will be made up of recognized independent experts from outside of USACE, with disciplines appropriate for the type of review being conducted. The PCX will contract with Battelle to manage the review. About four IEPR panel members will be selected by Battelle using the National Academy of Science's policy for selecting reviewers. Candidates can be nominated by USACE, public, or scientific or professional societies. A pool of potential reviewers will be evaluated by USACE to ensure no conflict of interest. Since this feasibility study is a deep draft navigation study, anticipated disciplines of IEPR reviewers are engineering (coastal), economics, and environmental. The IEPR panel review will be federally funded, including the costs associated with obtaining the IEPR panel contract. Responding to IEPR comments will be cost shared with the local sponsor.

<b>IEPR Panel Members/Disciplines</b>	<b>Expertise Required</b>
Economics	The Economics Panel Member should have experience in water resource economic evaluation or review, working directly for or with USACE, and have experience with Deep-Draft Navigation projects. The reviewer should also have experience reviewing federal water resource economic documents justifying construction efforts, an understanding of social well-being and regional economic development, and an understanding of traditional natural economic development benefits.
Environmental (Ecology)	The Ecology Panel Member should have experience in describing and evaluating the complex relationships and dynamics of coastal ecosystems and experience assessing the consequences of altering environmental conditions.
Environmental (NEPA Impact Assessment)	The NEPA Impact Assessment Panel Member should have experience in evaluating and conducting NEPA impact assessments, conducting cumulative effects analyses, as well as experience with complex multi-objective public. The reviewer should work projects with competing trade-offs and have experience in determining the scope and appropriate methodologies for impact assessment and analyses for a variety of projects with high public and interagency interest. The reviewer should also have experience determining the scope and appropriate methodologies for impact assessment and analyses for projects having impacts to nearby sensitive habitats.
Coastal Engineering	The coastal engineering reviewer should have extensive experience in estuarine systems and be familiar with USACE applications of standard coastal engineering processes.

**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**

In addition to the technical reviews described above, 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. The technical review efforts addressed in this Circular are to augment and complement the policy review processes by addressing compliance with published Army policies pertinent to planning products, particularly policies on analytical methods and the presentation of findings in decision documents. DQC and ATR efforts are to include the necessary expertise to address compliance with published planning policy. Counsel will generally not participate on ATR teams, but may at the discretion of the district or as directed by higher authority. When policy and/or legal concerns arise during DQC or ATR efforts 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 policies, nor are they expected to address such concerns. An IEPR team should be given the flexibility to bring important issues to the attention of decision makers. Legal reviews will be conducted concurrent with ATR of the preliminary, draft, and final feasibility report and environmental impact statement.

## **8. COST ENGINEERING DIRECTORY OF EXPERTISE (DX) REVIEW AND CERTIFICATION**

All decision documents shall be coordinated with the Cost Engineering DX, located in Walla Walla District. The DX will assist in determining the expertise needed on the ATR team and Type I EPR team (if required) and in the development of the review charge(s). The DX will also provide the Cost Engineering DX certification. The RMO is responsible for coordination with the Cost Engineering DX.

## **9. MODEL CERTIFICATION AND APPROVAL**

EC 1105-2-412 mandates the use of certified and approved models for all planning activities to ensure models are technically and theoretically sound, compliant with USACE policy, computationally accurate and based on reasonable assumptions. Planning models, for the purpose 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). For economic analysis a spreadsheet model will be used and submitted for approval. During environmental analysis a HIS model will be used.

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 DCQ, ATR, and IEPR (if required).

### **Planning Center of Expertise (PCX) Coordination**

This project is a shallow-draft navigation project. Pursuant to EC 1165-2-209, the District will coordinate with the Inland Navigation Planning Center of Expertise (PCX) in the Lakes and Rivers Division (LRH) Planning Center located in Huntington, West Virginia, as the lead PCX to organize teams to perform the reviews at various stages throughout the study. This PCX is responsible for the accomplishment and quality of ATR for this study. The ATR Team Lead will coordinate with Cost Engineering Directory of Expertise at Walla Walla for ATR of the Mii estimate, construction schedules, and contingencies.

EC 1105-2-407, Planning Models Improvement Program: Model Certification establishes the process and requirements for certification of planning models. This circular is specifically directed to software used in USACE planning studies, to ensure that only high quality software is being used for key planning decisions. Planning models 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. It includes all models

used for planning, regardless of their scope or source. This Circular does not cover engineering models used in planning studies, which will be certified under a separate process to be established in the future.

**a. Planning models.** The computational models used in the Mooring Basin Modifications Project, O&M Discretionary Authority Decision Document have been developed by or for the USACE. Model certification and approval for all identified planning models will be coordinated through the PCX as needed. Project schedules and resources will be adjusted to address any process for certification and PCX coordination.

<b>Model Name and Version</b>	<b>Brief Description of the Model and How it Will be Applied in the Study</b>	<b>Certification/Approval Status</b>
Economic Model	Spreadsheet and documentation to calculate benefits; submitted to PCX for approval for one-time use	Documentation will be submitted to INPCX for a one-time use approval
HEP Analysis Procedures	HSI models for three species	Certified

**b. Engineering Models.** The following is considered an engineering model and undergoes a different review and approval process for usage. Its certification is not addressed in this Review Plan.

- 1) Mii - cost estimating models

## 10. REVIEW SCHEDULES AND COSTS

### a. ATR schedule and Cost.

**Review Cost:** The cost for ATR is estimated to be \$25,000.

#### Review Schedule

<u>TASK</u>	<u>Proposed Start Date</u>
Update of Project Review Plan	September 2012
Coordinate with MSC and post on website	November 2012
PCX identifies ATR team	November 2013
Review of Models	TBD
ATR review of decision documents	January 2014
ATR Certification of Report	March 2014

### b. Type I IEPR Schedule and Cost: TBD

## 11. PUBLIC PARTICIPATION

### Public Comment

Public review of the EA is scheduled for January 2014 – March 2014. Public comments received during public review will be included in the final versions of the EA with responses included.

<u>TASK</u>	<u>START DATE</u>	<u>FINISH DATE</u>
Public Involvement Plan	TBD	TBD
Public Review of Report & EA	January 2014	March 2014

No public meetings or informational mail-outs are planned for the decision document.

## 12. REVIEW PLAN APPROVAL AND UPDATES

The components of the RP were developed pursuant to the requirements of EC 1165-2-209, EC 1105-2-412 and ER 1110-1-12.

The Southwestern Division Commander is responsible for approving this RP. 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 RP is a living document and may change as the study progresses. The home district is responsible for keeping the RP up to date. Minor changes to the review plan since the last MSC Commander approval are documented in Attachment 3. Significant changes to the Review Plan (such as changes to the scope and/or level of review) should be re-approved by the MSC Commander following the process used for initially approving the plan. The latest version of the RP, along with the Commanders' approval memorandum, should be posted on the Home District's webpage. The latest RP should be provided to the RMO and home MSC.

### Review Plan Point of Contact

Questions about this Review Plan may be directed to Mr. Robert Van Hook, Galveston District PDT Planning contact at (409) 766-3024 or [robert.c.vanhook@usace.army.mil](mailto:robert.c.vanhook@usace.army.mil)

### General Information

The decision documents that will undergo peer review are the O&M Discretionary Authority Decision Document (including Economic Appendix), Environmental Assessment, and Engineering Appendix. No sponsor in-kind products are expected to be prepared.

### Scientific Information

The final decision document (and supporting documentation) is anticipated to contain standard engineering, environmental and economic analyses and information; therefore no influential scientific information is likely to be contained in any of the documentation.

### Timing

The peer review process will begin in September 2013 with the initiation of the ATR team and review of the Report materials. The ATR team members Discretionary Authority Study are identified in Appendix A.



**GULF INTRACOASTAL WATERWAY, TEXAS  
MOORING BASIN MODIFICATIONS  
OPERATIONS AND MAINTENANCE DISCRETIONARY AUTHORITY  
DECISION DOCUMENT  
PROJECT REVIEW PLAN**

**ATTACHMENT 1 – REVIEW PLAN TEAMS**

**PROJECT DELIVERY TEAM**

NAME	TITLE/ORG.	PHONE	EMAIL
	Planning Study Lead CESWG-PE-PL		
	Operations Manager CESWG-OD-N		
	Civil Engineer CESWG-EC-EG		
	Geotech Engineer CESWG-EC-ES		
	Structural Engineer CESWG-EC-ES		
	Hydraulic Engineer CESWG-EC-EH		
	Environmental Lead CESWG-PE-PR		
	Archeologist CESWG-PE-PR		
	Economist CESWG-PE-PL		
	Cost Engineer CESWG-EC-PS		
	Realty Specialist CESWG-RE-A		
	Area Office CESWG-AO-N		
	Public Affair Officer CESWG-PAO		

**DISTRICT QUALITY CONTROL TEAM**

NAME	TITLE/ORG.	PHONE	EMAIL
	DQC Manager		
	Plan Formulation		

	Economics		
	Environmental		
	Real Estate		
	Engineering		
	Operations		

**AGENCY TECHNICAL REVIEW TEAM**

NAME	TITLE/ORG.	PHONE	EMAIL
<b>TBD</b>	ATR Manager		
<b>TBD</b>	Economics		@usace.army.mil
<b>TBD</b>	Environmental Resources		@usace.army.mil
<b>TBD</b>	Hydraulics & Hydrology		@usace.army.mil
<b>TBD</b>	Plan Formulation		@usace.army.mil
<b>TBD</b>	Real Estate/Lands		@usace.army.mil
<b>TBD</b>	DX Cost Engineering		@usace.army.mil
<b>TBD</b>	Engineering Design		@usace.army.mil
<b>TBD</b>	Operations		@usace.army.mil

**VERTICAL TEAM POC'S**

NAME	TITLE/ORG.	PHONE	EMAIL
	MSC Planning Coordinator for SWG		
	Chief of Planning Division		
	Regional Integration Team		

**PLANNING CENTER OF EXPERTISE  
INLAND NAVIGATION**

NAME	TITLE/ORG.	PHONE	EMAIL
	Program Manager, PCX Inland Navigation		

**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 GIWW Mooring Basin Modifications, Texas, Discretionary Authority Study. 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<sup>sm</sup>.

*SIGNATURE*

Name

ATR Team Leader

Office Symbol/Company

\_\_\_\_\_  
Date

*SIGNATURE*

Name

Project Manager

Office Symbol

\_\_\_\_\_  
Date

*SIGNATURE*

Name

Architect Engineer Project Manager<sup>1</sup>

Company, location

\_\_\_\_\_  
Date

*SIGNATURE*

Name

Review Management Office Representative

Office Symbol

\_\_\_\_\_  
Date

**CERTIFICATION OF AGENCY TECHNICAL REVIEW**

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

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

*SIGNATURE*

---

*Name*

Chief, Engineering Division

*Office Symbol*

\_\_\_\_\_  
Date

*SIGNATURE*

---

*Name*

Chief, Planning Division

*Office Symbol*

\_\_\_\_\_  
Date

<sup>1</sup> Only needed if some portion of the ATR was contracted

**ATTACHMENT 3: REVIEW PLAN REVISIONS**

<b>Revision Date</b>	<b>Description of Change</b>	<b>Page / Paragraph Number</b>

#### ATTACHMENT 4: ACRONYMS AND ABBREVIATIONS

<u>Term</u>	<u>Definition</u>	<u>Term</u>	<u>Definition</u>
AFB	Alternative Formulation Briefing	NED	National Economic Development
ASA(CW)	Assistant Secretary of the Army for Civil Works	NER	National Ecosystem Restoration
ATR	Agency Technical Review	NEPA	National Environmental Policy Act
CSDR	Coastal Storm Damage Reduction	O&M	Operation and maintenance
DPR	Detailed Project Report	OMB	Office and Management and Budget
DQC	District Quality Control/Quality Assurance	OMRR&R	Operation, Maintenance, Repair, Replacement and Rehabilitation
DX	Directory of Expertise	OEO	Outside Eligible Organization
EA	Environmental Assessment	OSE	Other Social Effects
EC	Engineer Circular	PCX	Planning Center of Expertise
EIS	Environmental Impact Statement	PDT	Project Delivery Team
EO	Executive Order	PAC	Post Authorization Change
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
Home District/MS	The District or MSC responsible for the preparation of the decision document	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
ITR	Independent Technical Review	SAR	Safety Assurance Review
LRR	Limited Reevaluation Report	USACE	U.S. Army Corps of Engineers
MSC	Major Subordinate Command	WRDA	Water Resources Development Act