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

REPLY TO ATTENTION OF

CESWD-PDS-P (1105)

MEMORANDUM FOR Commander, Galveston District

SUBJECT: Review Plan for Gulf Intracoastal Waterway, Port O'Connor to Corpus Christi, Texas

1. References:

a. EC 1105-2-410, 22 August 2008, Review of Decision Documents.

b. Memorandum, CECW-CP, 30 March 2007, subject: Peer Review Process.

c. Addendum to Reference 1.b., CECW-CP, September 2008, subject: Supplemental Information for the Peer Review Process.

2. The review plan for the subject study, enclosed, has been reviewed and cleared for approval by the Inland Navigation Planning Center of Expertise. It has been prepared in accordance with the referenced guidance, and public comments received will be incorporated into the plan as the study progresses. It is not anticipated to require Independent External Peer Review.

3. I hereby approve this review plan, which is subject to change as study circumstances require, consistent with study development under the Project Management Business Process. Subsequent substantial revisions to this plan or its execution will require new written approval from this office.

4. If you have questions or need further information, please contact Jo Ann M. Duman, CESWD-PDS-P, at (469) 487-7065.

Encl

ANTHONY C. FUNKHOUSER
Colonel, EN
Commanding

CF:
CESWG-PE-PL (Laird)

PROJECT REVIEW PLAN

GULF INTRACOASTAL WATERWAY
PORT O'CONNOR TO CORPUS CHRISTI, TEXAS
SECTION 216 DRAFT FEASIBILITY STUDY

U.S. Army Corps of Engineers
Galveston District

July 2009

TABLE OF CONTENTS

1. PURPOSE 1
2. APPLICABILITY 1
3. REFERENCES 1
4. GENERAL 1
A. Project Description 1
B. Project Delivery Team 2
C. Model Certification 2
5. REVIEW REQUIREMENTS 3
A. District Quality Control (DQC) 3
B. Agency Technical Review (ATR) 4
C. Independent External Peer Review (IEPR) 4
D. Policy and Legal Compliance Review 5
E. Safety Assurance Review 5
F. Planning Center of Expertise (PCX) Coordination 5
6. REVIEW PROCESS AGENCY TECHNICAL REVIEW (ATR) 6
A. General 6
More detailed ATR information is found in the Plan Formulation and Evaluation Section of the PMP. 6
B. ATR Team 6
h. Cost Engineering – the reviewer should have a strong knowledge of the cost estimating practices for inland draft navigation projects. 7
C. Review Cost 7
The cost for ATR is estimated to be $50,000. 7
D. Review Schedule 7
7. PROJECT REVIEW PLAN 8
A. General Information 8
B. Scientific Information 8
C. Timing 8
D. Public Comment 8
E. Dissemination of Public Comments 8
F. Points of Contact 9
APPENDIX A – Review Plan Teams 10

GULF INTRACOASTAL WATERWAY
PORT O'CONNOR TO CORPUS CHRISTI, TEXAS
SECTION 216 DRAFT FEASIBILITY STUDY
PROJECT REVIEW PLAN

1. PURPOSE

Pursuant to Engineering Circular (EC) 1165-209 "Civil Works Review Policy," EC 1105-2-410, "Review of Decision Documents, EC 1105-2-408, "Peer Review of Decision Documents," Office of Management and Budget's "Final Information Quality Bulletin for Peer Review," and the 30 May 2007 memorandum from Major General Don Riley, USACE Director of Civil Works, a Project Review Plan (PRP) has been updated from the originally approved Gulf Intracoastal Waterway (GIWW), Texas, Port O'Connor to Corpus Christi, Section 216 Feasibility Study PRP dated October 2007.

This PRP presents the process for District Quality Control (DQC), and Agency Technical Review (ATR) that will be implemented as part of the GIWW, Port O'Connor to Corpus Christi, Texas, Draft Feasibility Study and Environmental Assessment (EA). These processes are essential to improving the quality of the products that we produce. The Project Management Plan (PMP) for the study will be amended to include this PRP since the PRP is considered a component of the PMP.

2. APPLICABILITY

The document provides the PRP for the GIWW, Port O'Connor to Corpus Christi, Texas, Section 216 Draft Feasibility Study. It identifies the DQC and ATR process for all work conducted as part of the study, including in-house, non-Federal sponsor, and contract work efforts.

3. REFERENCES

EC 1165-2-209 "Civil Works Review Policy" dated 1 July 2009
EC 1105-2-410 "Review of Decisions Documents" dated 22 August 2008
EC 1105-2-408 "Peer Review of Decision Documents" dated 31 May 2005
EC 1105-2-407 "Planning Models Improvement Program: Model Certification" dated 31 May 2005
ER 1105-2-100 "Planning Guidance Notebook," dated April 2000
Major General Riley Memorandum on Peer Review Process, dated 30 May 2007

4. GENERAL

A. Project Description

The Gulf Intracoastal Waterway (GIWW) is part of the Nation's inland waterway system and stretches from Brownsville, Texas, along the entire Gulf of Mexico to St. Marks, Florida. The Port O'Connor to Corpus Christi reach extends from Port O'Connor to the John F. Kennedy Causeway at Corpus Christi Bay, Texas and consists of a 12-foot deep by 125-foot wide channel which spans 79 miles along the central Texas coast through portions of Matagorda, Calhoun, Refugio, San Patricio, and Nueces counties. The problems that were identified within this reach of the waterway involve long-term dredged material disposal and navigation problems. The feasibility study was undertaken to evaluate operational needs and address environmental considerations that directly affect the GIWW and its traffic to allow for a more effective, safe, and efficient waterway and is being conducted under Section 216 authority of the 1970 Flood Control Act. This authority provides for review of completed Corps of Engineer projects that may have changed because of physical or economic reasons.

The GIWW, Port O'Connor to Corpus Christi, Texas, Section 216 Draft Feasibility Study will result in a decision document that will require Congressional authorization. The proposed study will address the feasibility of implementing channel improvements to the existing GIWW system in the Port O'Connor to Corpus Christi reach. The study will also include an Environmental Assessment (EA). The project is a fully Federally funded inland navigation project, and as such, there are no products or work-in-kind provided by the non-Federal sponsor, the Texas Department of Transportation (TxDOT).

The feasibility study addresses two components: 1) improve navigational efficiency in the vicinity of Corpus Christi Bay through construction of an alternate route or by rerouting the existing GIWW route; and 2) construction of a mooring basin in the vicinity of Port O'Connor to replace a basin that was previously removed due to vessel traffic congestion. The proposed Corpus Christi Bay reroute would realign the GIWW similar to its alignment prior to 1976 when the current route was constructed. The 1976 reroute was thought to improve efficiency by creating a more direct route, but has instead created a high-shoaling area where the GIWW and Corpus Christi Ship Channel intersect. The United States Army Corps of Engineers (USACE) Galveston District is investigating whether a modification to the existing channel alignment is feasible and whether commercial navigation benefits produced by modifying or realigning the GIWW and replacement of the mooring basin are sufficient to offset the costs and environmental consequences of the proposed changes.

B. Project Delivery Team

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.

C. Model Certification

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.

The computational models used in the GIWW, Port O'Connor to Corpus Christi Draft Feasibility Study 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 this process for certification and PCX coordination. The planning models used are:

1) Port O'Connor Replacement Moorings Hydraulic Investigation – Hydraulic analysis conducted by ERDC to determine the impacts of the proposed relocation on the surrounding GIWW.
2) Corpus Christi Bay Route Barge Simulation Analysis – Navigation study performed by ERDC utilizing actual vessels as they navigated the proposed alternate/reroute. Temporary markers were placed along the proposed route to guide the vessel operators as they navigated the open bay.
3) NavSym Economic model – Originally run in 2001 by IWR contractor. Transit inputs recalculated using 2005-2007 data and vessel operating cost data.
4) @Risk - Microsoft Excel add-on
5) US Fish and Wildlife Service Habitat Suitability Index – proposed for use to assess loss of sea grass habitat at location of Port O'Connor moorings location.

The following are considered engineering models and undergo a different review and approval process for usage. Their certification is not addressed in this Review Plan.

1) Mii - cost estimating models
2) Risk-based analysis for cost estimating

5. REVIEW REQUIREMENTS

A. 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 GIWW, Port O'Connor to Corpus Christi, Texas, Section 216 Draft Feasibility Study PMP. 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 GIWW, Port O'Connor to Corpus Christi, Texas, Section 216 Draft Feasibility Study, non-PDT members and/or supervisory staff will conduct this review for major draft and final products. 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. DQC is not addressed further in the Review Plan.

B. Agency Technical Review (ATR)

ATR (which replaces the level of review formerly known as Independent Technical Review [ITR]) 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-today 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 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. This PRP outlines the planned approach for meeting this requirement for the GIWW - Port O'Connor to Corpus Christi Draft Feasibility Study. ATR is required for this study.

C. Independent External Peer Review (IEPR)

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 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. The GIWW, Port O'Connor to Corpus Christi, Texas, Section 216 Draft Feasibility Study does not meet the risk and magnitude criteria. Information presented in the decision document will not be based on novel methods, present complex challenges, nor contain precedent-setting methods or models. The potential for failure or controversy and uncertainties of predictions and outcomes is considered minimal. Costs associated with this project are estimated to be less than 10 million dollars. For these reasons, an IEPR is not anticipated at this time. If unforeseen issues arise, the need for an IEPR will be reconsidered.

D. 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.

E. Safety Assurance Review

WRDA 2007, Section 2035, Safety Assurance Review, requires all projects addressing flooding or storm damage reduction to undergo a safety assurance review during design and construction activities. This safety assurance review will address the adequacy, appropriateness, and acceptability of the design and construction activities for the purpose of assuring public health, safety, and welfare. The GIWW, Port O'Connor to Corpus Christi, Texas, Section 216 Draft Feasibility Study is an inland navigation improvement project and does not address flooding or storm damage reduction, and does not meet risk and magnitude criteria that would necessitate performing an IEPR. Information presented in the decision document will not be based on novel methods, present complex challenges, nor contain precedent-setting methods or models. The potential for failure or controversy and uncertainties of predictions and outcomes is considered minimal. If unforeseen issues arise, the need for a Safety Assurance Review will be reconsidered.

F. Planning Center of Expertise (PCX) Coordination

This project is an inland navigation project. Pursuant to EC 1105-2-408, the District will coordinate with the Inland Navigation Planning Center of Expertise (PCXIN) in the Great Lakes and Ohio River Division (LRD) 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.

6. REVIEW PROCESS AGENCY TECHNICAL REVIEW (ATR)

A. General

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 GIWW – Port O'Connor to Corpus Christi Draft Feasibility Study, 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 ER 1165-2-203. 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. ATR Team

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 Planning Center of Expertise (PCX) with appropriate consultation with the allied Communities of Practice such as engineering and real estate. The Inland Draft Navigation PCX is responsible for identifying the ATR team members. The Galveston District could 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.

It is anticipated that the review team will consist of nine 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:

a. Engineering Design – the reviewer(s) should have extensive knowledge of channel design for navigation studies

b. Hydraulics and Hydrology – the reviewer(s) should have extensive knowledge of hydrodynamic and ship simulation models/studies.

c. Economics – the reviewer should have a strong understanding of economic models or studies relative to inland navigation (e.g. the GIWW).

d. 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.

e. Real Estate – the reviewer should have knowledge in reviewing RE Plans for feasibility studies (e.g. navigation servitude).

f. Plan Formulation – the reviewer(s) should have a strong knowledge in current planning policies and guidance related to planning studies.

g. Operations - the reviewer should have a strong knowledge in current operations of inland draft navigation projects.

h. Cost Engineering – the reviewer should have a strong knowledge of the cost estimating practices for inland draft navigation projects.

C. Review Cost

The cost for ATR is estimated to be $50,000.

D. Review Schedule

TASK	Proposed Date
Update of Project Review Plan	June 2009
Coordinate with MSC and post on website	June 2009
PCX identifies ATR team	July 2009
ATR review of FSM decision documents	September 2009
FSM	December 2009
Review of Models	2009 - 2011
ATR of AFB decision documents	2011

7. PROJECT REVIEW PLAN

The components of the PRP were developed pursuant to the requirements of EC 1105-2-408, EC 1105-2-410, and EC 1165-209.

A. General Information

The decision documents that will undergo peer review are the Draft Feasibility Report (including Economic Appendix), Environmental Assessment, and Engineering Appendix. The project is a fully Federally funded inland navigation project, and as such, there are no products or work-in-kind provided by the non-Federal sponsor, the Texas Department of Transportation (TxDOT).

B. Scientific Information

The final feasibility report and EA (and supporting documentation) are 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.

C. Timing

The peer review process will begin in July 2009 with the initiation of the ATR team and subsequent review of the FSM package during the initial plan formulation phase of the study.

D. Public Comment

A Public Scoping Meeting was held on January 31, 2007. A Public Involvement Plan will be formulated to ensure public involvement throughout the feasibility study process. Public comments will be made available on the project website.

TASK	START DATE	FINISH DATE
Public Scoping Meeting	January 31, 2007	January 31, 2007
Public Involvement Plan	TBD	TBD
Public Review of Draft Feas Report & EA	2011	2011

E. Dissemination of Public Comments

Proceedings from all public meetings and comments received during public review will be included in the draft EA with responses included. Public review of the draft EA is scheduled

to occur after the AFB. Comments and corresponding responses will be summarized in the draft EA and provided to the ATR team.

F. Points of Contact

Questions about this Review Plan may be directed to Mr. Seth Jones, Galveston District PDT Planning contact at (409) 766-3068 or seth.w.jones@usace.army.mil