REVIEW PLAN

Corpus Christi Chip Channel, Texas
Limited Reevaluation Report and Section 902 Analysis

U.S. Army Corps of Engineers
Galveston District

MSC Approval Date: 12 September 2012

US Army Corps
of Engineers ®

REVIEW PLAN

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TABLE OF CONTENTS

1. PURPOSE AND REQUIREMENTS

a. Purpose. This Review Plan defines the scope and level of peer review for the Corpus Christi Ship Channel, Texas, Limited Reevaluation Report and Section 902 Analysis.

b. References

(1) Engineering Circular (EC) 1165-2-209, Civil Works Review Policy, Change #1 31 Jan 2012
(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) 1995 Limited Reevaluation Report for the Houston-Galveston Navigation Channels, Texas

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).

2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION

The RMO is responsible for managing the overall peer review effort described in this Review Plan. The RMO for decision documents is typically either a Planning Center of Expertise (PCX) or the Risk Management Center (RMC), depending on the primary purpose of the decision document. The RMO for the peer review effort described in this Review Plan is 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.

3. STUDY INFORMATION

a. Decision Document. This study and Section 902 analysis for the Corpus Christi Ship Channel, Texas, will result in a Limited Reevaluation Report (LRR) decision document that summarizes cost changes that have occurred to the recommended plan as outlined in the 2003 Chief's Report and authorized by WRDA 2007. The LRR will also document the results of the Section 902 cost limit analysis. The Section 902 analysis is expected to show that the maximum cost limit for the project will be exceeded prior to completing construction of the remaining project elements. If the Section 902 analysis shows that the maximum cost limit will be exceeded, the LRR and new project cost will require Congressional authorization. Approval authority for the report is the Director of Civil Works (DCW).

b. Study/Project Description.

Project Background. The deepening and widening of the overall project was authorized by the 2007 WRDA. The authorization document recommended a project consisting of navigation plan (NED) and an ecosystem restoration plan. The CCSC provides deep-water access from the Gulf of Mexico to the Port of Corpus Christi, via Aransas Pass, through Redfish Bay and Corpus Christi Bay. Access points include the La Quinta Channel, the Gulf Intracoastal Waterway (GIWW), and the Rincon Canal. The 1969 Rivers and Harbors Act changed this project, formerly known as the Port Aransas-Corpus Christi Waterway, Texas, to the CCSC, Texas. This Act was a consolidation of old improvements in Port Aransas, Texas, and channel improvements from Aransas Pass to Corpus Christi, Texas. Aransas Pass connects Corpus Christi Bay with the Gulf of Mexico. The waterway extends from deep water in the Gulf through the Aransas Pass jettied entrance, then westerly 20.75 miles to and including a turning basin at Corpus Christi, then westerly 1.75 miles through Industrial Canal to and including a turning basin at Avery Point, then westerly 0.9 miles to and including the Chemical Turning Basin, then 3.3 miles to and including a turning basin near Tule Lake, then northwesterly 1.8 miles to the Viola Turning Basin. The landlocked portion of the CCSC is referred to as the Inner Harbor. The La Quinta Channel extends off of the CCSC near Ingleside, Texas, and runs parallel to the eastern shoreline of Corpus Christi Bay for 5.5 miles to the La Quinta Turning Basin (Figure 1).

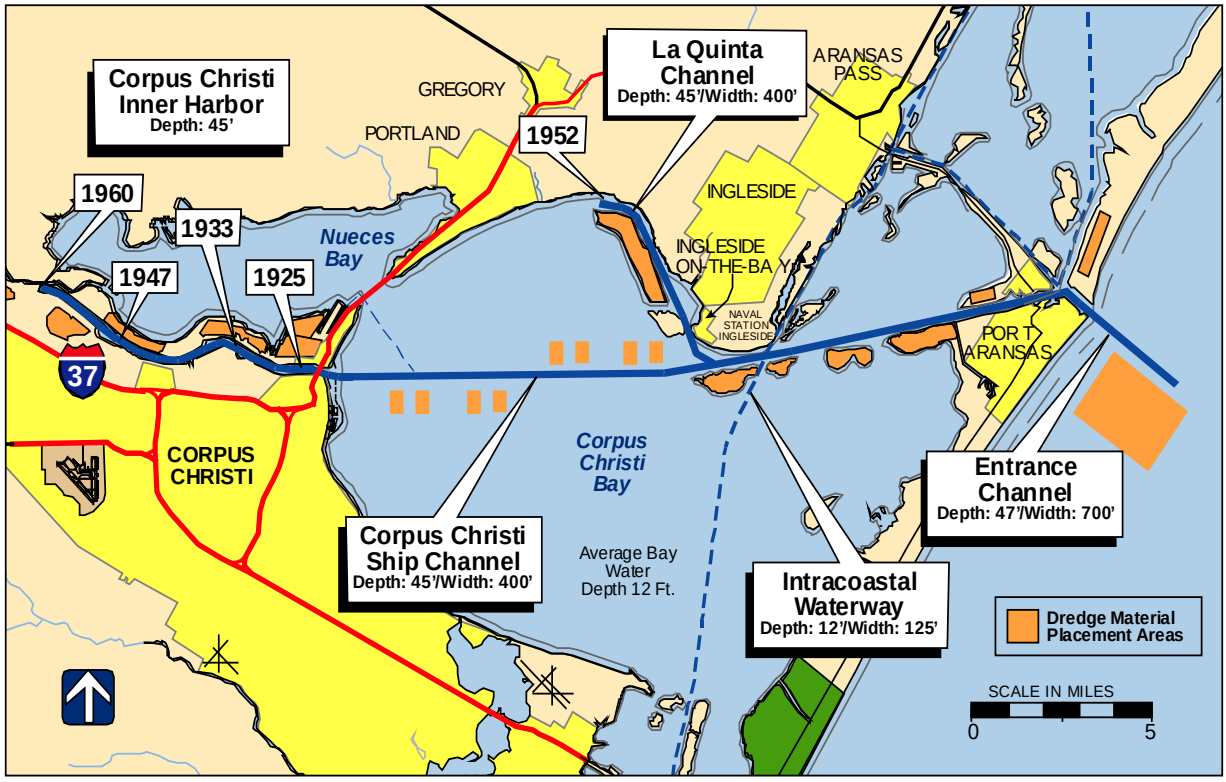

Figure 1 - Corpus Christi Ship Channel & La Quinta Channel – Years Denote Date of Completion

The current depth for both the CCSC and the La Quinta Channel is 45 feet. Project width of the CCSC ranges from 700 feet in the entrance channel to 200 feet at locations in the Inner Harbor. The La Quinta Channel measures 300 to 400 feet wide. Construction of the existing 45-foot project on both the Corpus Christi and La Quinta Channels was completed in 1989.

Current Limited Reevaluation Report

The Chief of Engineer's Report dated June 2, 2003, recommended a plan to modify the existing projects for Corpus Christi and La Quinta channels and provide ecosystem restoration to areas near the navigation channel. The plan consisted of the following improvements:

a. Deepen the CCSC from Viola Turning Basin to the end of the jetties in the Gulf of Mexico (approximately 34 miles) to - 52 feet MLT (53-54 feet MLLW); deepen the remainder of the channel into the Gulf of Mexico (approximately 2 miles) to -54 feet MLT (55-feet MLLW); and widen the Upper Bay and Lower Bay reaches (approximately 20 miles) to 530 feet.

b. Construct barge shelves (channels) 200 foot wide and 12 foot deep MLT (14 feet MLLW) on both sides of the CCSC from its junction with the La Quinta Channel to the entrance of the Inner Harbor (approximately 10 miles).

c. Extend the La Quinta Channel approximately 1.4 miles beyond its current limit at a depth of -39 feet MLT (40.5 feet MLLW). The channel will measure 400 feet wide and include a second turning basin. The turning basin will be constructed at the end of the proposed channel extension with a diameter of 1,200 feet, to a depth of -39 feet MLT (40.5 feet MLLW). The existing La Quinta Channel will remain at the existing 45-foot depth. The creation of 15 acres of seagrass adjacent to the La Quinta Channel extension will mitigate for project impacts to approximately five acres of seagrass.

d. Construct two ecosystem restoration features, including rock breakwaters and geotubes to protect 1,200 acres of an existing high quality, complex wetland ecosystem that is comprised of a valuable mix of subtidal habitat, saltmarsh, blue-green algal flats, sandflats and associated uplands. Additionally, the features protect 40 acres of highly productive seagrass. Both components are adjacent to the CCSC in the Lower Bay reach of the channel.

Each of these measures was individually justified and all are considered separable elements. Construction of the La Quinta Channel Extension and the Ecosystem Restoration Features is nearing completion.

The *Corpus Christi Ship Channel, Texas, Channel Improvement Project, Final Feasibility Report and Final Environmental Impact Statement,* dated April 2003 (2003 Feasibility Report) was a comprehensive navigation study investigating the feasibility of improving the CCSC and La Quinta Channel. The project

was subsequently authorized by Section 1001(40) of WRDA 07 (Public Law 110-114, 121 Stat 1056). A Limited Reevaluation Report (LRR) was initiated in 2007, but due to funding constraints the reevaluation was restructured to move forward in 2008 with a LRR for just two of the four separable elements, including the La Quinta Channel extension and an ecosystem restoration feature. The extension of the La Quinta Channel was justified via benefits associated with a proposed container terminal. The ecosystem restoration feature will restore and protect 40 acres of seagrass habitat near Ingleside on the Bay, Texas, with the construction of an offshore stone breakwater. The LRR was finalized for these two elements and the document was approved by Southwestern Division (SWD) in February of 2010. The construction of the ecosystem feature is complete and the construction of the La Quinta Channel extension is scheduled to be complete in the summer/fall of 2013. This LRR update includes economic and environmental information for the remaining two separable elements including the CCSC deepening and widening and the construction of barge shelves on a portion of the channel.

Current Limited Reevaluation Report - Section 902 Cost Limit Analysis

The purpose of this reevaluation is to update project costs, economics, and environmental information to insure that the project components remain justified in accordance with the previously authorized feasibility study.

Current guidance requires that if "more than three fiscal years have elapsed since the release of the Report of the Chief of Engineers, an economic reevaluation must be the first item of work upon receipt of any funds intended to further project implementation" (Engineer Regulation (ER) 1105-2-100).

Further, when it appears that the total cost of an authorized project under construction may exceed the project cost limit as determined under Section 902 of the Water Resources Development Act of 1986 (WRDA 86), a report is prepared to obtain additional authority for the estimated cost increase. This report serves that function.

As part of the effort to account for the changes outlined above, the District will include the 902 cost limit analysis as part of the LRR and use the LRR to request authorization for a new project cost (if needed). The scope of LRR will cover efforts such as:

- Development of the LRR MII estimate,
- Compilation and review of all costs to the project since authorization,
- Review of environmental coordination and updating environmental information,
- Review/calculation of economic benefits of the project. Calculation of remaining costs to the project,

NEPA Documentation

The Feasibility Report/Draft Environmental Impact Statement (DEIS) was published by the Galveston District in April 2003. The 2003 Feasibility Report/DEIS indicated that proposed project actions would

not result in any adverse impacts to the Corpus Christi Bay system. The Record of Decision (ROD) was signed on October 1, 2007. The ROD concluded that the plan detailed in the Chief's Report dated June 2, 2003 is technically feasible, economically justified, in accordance with environmental statutes, and in the public interest. There have been no significant changes in the project area or sensitive resources that would result in impacts to resources not previously considered and accounted for in the Final EIS (2003 FEIS). Based on this consideration, the ROD remains applicable to the recommended plan.

Because there have been no changes in project area or potential impacts to ecological resources, only a brief description of the resources and project impacts will be provided as background information. More detailed descriptions of changes or updates to environmental clearances (e.g., Endangered Species Act will be provided in the LRR.

c. Factors Affecting the Scope and Level of Review.
The LRR is essentially three things: 1) a documentation of completed and remaining work authorized 2) a summary of all NEPA documentation and an environmental update; and 3) a Section 902 Analysis (with an economic update) to determine if the authorized project cost limit may be exceeded. If it is determined that the project cost limit will be exceeded, the LRR would also be the vehicle for requesting authorization of a new project cost. If new authorization is required, coordination with the Cost Engineering Directory of Expertise in Walla Walla District for ATR of cost estimates, construction schedules and contingencies will occur. The LRR does not recommend additional project elements or present for consideration risk factors to life and safety or new novel methods and technologies. With the possible exception of requesting authorization for a new project cost, public review of the LRR is not anticipated and the potential for controversy is minimal. Risk associated with the LRR is primarily associated with the calculation of project costs and conducting the project cost limit analysis. An Exclusion from Independent External Peer Review (IEPR) was approved in April 2012.

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 analyses to be provided by the non-Federal sponsor include: **Not Applicable**

4. DISTRICT QUALITY CONTROL (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 MSC.

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, Project Delivery Team (PDT) reviews, etc. Additionally, the PDT is responsible for a complete reading of the report to assure the overall integrity of the report, technical appendices

and the recommendations before approval by the District Commander. For the LRR / Section 902 Cost Analysis, 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.

5. 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 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 the designated 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. The ATR team lead will be from outside the home MSC.

a. Products to Undergo ATR. The product to undergo ATR will be the draft LRR/Section 902 costs limit analysis. ATR is required for this study and will focus on the following:

(1) Review of the planning study process,
(2) Review of the compilation of project associated costs to date, and cost estimates for remaining project features,
(3) The Section 902 cost limit analysis,
(4) Completeness of study and support documentation

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. The ATR lead may 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.
Cost Engineering/Estimating	The Cost Engineering / Estimating reviewer should be a reviewer with experience in deep-draft navigation.
Real Estate	The reviewer should have knowledge in reviewing RE Plans for Decision Documents (e.g. LERRDs, navigation servitude).

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

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

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

In some situations, especially 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. A sample Statement of Technical Review is included in Attachment 2.

ATR is an ongoing process; the most recent ATR certification is below:

DEPARTMENT OF THE ARMY
MOBILE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2288
MOBILE, ALABAMA 36628-0001

REPLY TO
ATTENTION OF:

CESAM-PD-D (1105-2-40a)

27 July 2012

MEMORANDUM FOR MS. CHERLY JANES, PLANNING LEAD, (CESWG-PE-PL), USACE GALVESTON DISTRICT, 2000 FORT POINT ROAD, GALVESTON, TEXAS 77550-3211

SUBJECT: Certification of Completion of Agency Technical Review, Corpus Christi Ship Channel Deepening and Barge Shelves Limited Reevaluation Report, Corpus Christi, Texas

1. References:

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

b. EC 1105-2-412, Assuring Quality of Planning Models, 31 March 2011

c. Memorandum, CECW-CP, 30 March 2007, Subject: Peer Review Process

d. Supplemental information for the "Peer Review Process" Memo, dated March 2007

2. In accordance with EC 1165-2-209, "Civil Works Review Policy," dated 31 January 2010, Agency Technical Review (ATR) of the Corpus Christi Ship Channel Deepening and Barge Shelves Limited Reevaluation Report has been coordinated with and executed through the Deep Draft Navigation Planning Center of Expertise (DDN-PCX) in DrChecks.

3. We concur that such peer review of the report documents have been completed and certified. All outstanding issues have been addressed and satisfied. The point of contact is Mr. Johnny L. Grandison, CESAM-PD-D, (251)-694-3804.

Encls

BERNARD E. MOSEBY
Technical Director
Deep Draft Navigation Planning Center
Expertise

CF:
CESAD-PD-S/PAYNE
CESAD-PD-/SMALL
CESAD-PD-S/STRATTON
CESWG/LAIRD
CESWG/HEINLEY

6. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)

An Exclusion from Type I IEPR was approved by HQUSACE on April 16, 2012 and is included below.

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 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. As the LRR is a study there was no Type II IEPR requirement.

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. The LRR is an economic update to demonstrate whether the 52-foot project for the CCSC and barge shelves segment is economically justified and is consistent with the administration's program for protecting the Nation's environment. The studies undertaken in the reevaluation effort have shown no significant impacts that would preclude plan implementation. There is no change in scope, project purpose, location, or design of the authorized project.

The cost to complete the project exceeds the 902 limit authorized by congress and as such, was greater than the authorized amount of $188,110,000. The LRR does not reevaluate or reformulate alternatives, technical analyses, or recommend additional features. The LRR 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. Project risks have already been evaluated in an approved Chief's Report and the project is authorized. While the Section 902 limit analysis may result in a request for additional authorization to fund completion of the project, it will not affect any of the previous recommendations. We do not anticipate that other criteria, such as public safety concerns, significant controversy, a high level of complexity, significant economic, environmental and social effects to the nation, innovative solutions, or life safety issues will trigger the requirement for IEPR. Given the limited scope and potential impact, the document would not significantly benefit from IEPR. Therefore the District obtained the exclusion from the Type I IEPR requirement.

Mandatory IEPR Triggers

EC 1165-2-209 identifies four mandatory triggers for Type I IEPRs:

(a) Project is a significant threat to human life.
(b) Where the estimated total cost of the project, including mitigation costs, is greater than $45 million.
(c) Where the Governor of an affected State requests a peer review by independent experts.
(d) 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 the size, nature, or effects of the project or the economic or environmental costs or benefits of the project.

(1) The project is not a significant threat to human life. The report documents changes that have occurred during construction and does not request authorization for construction of any new features.
(2) The 902 Analysis being conducted could show that the project cost to completion will exceed the authorized 902 limit and as a result would need Congressional authorization for a new authorized cost and 902 limit. The exact amount is unknown at this time as the 902 analysis is underway. It is anticipated that the amount will be between $20 million and $40 million.
(3) A peer review has not been requested by a Governor of an affected State.
(4) The project was extensively coordinated prior to approval of the 1995 LRR. This current draft LRR documents the current cost estimate for the project at October 2011 price levels. Thus, it is not anticipated that the DCW and CE will determine that the study is controversial.
(5) Given that no new project features are being recommended for construction under the Draft LRR and the anticipated result of the 902 Analysis, the District believes the project would not benefit by conducting an IEPR.

Criteria for Eligibility for IEPR Exclusion

According to EC 1165-2-209, a project study may be excluded from Type I IEPR in cases where none of the above mandatory triggers are met (which is the case for this project) and:

(a) It does not include an EIS, and the DCW or the CE determines that the project:
- Is not controversial; and
- Has no more than negligible adverse impacts on scarce or unique tribal, cultural, or historic resources;
- Has no substantial adverse impacts on fish and wildlife species and their habitat prior to the implementation of mitigation measures; and

- Has, 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 or the critical habitat of such species designated under such Act;

(1) The project is not anticipated to be controversial. The purpose of the Draft LRR and 902 Analysis is to document changes during construction and determine if the 902 limit will be exceeded and require authorization of a new project cost.
(2) The Draft LRR and 902 Analysis does not recommend construction of any new features and therefore does not impact scarce or unique tribal, cultural, or historic resources.
(3) The current Draft LRR and 902 Analysis documents changes and project costs. It does not recommend construction of new features. Therefore the project does not have adverse impact on fish and wildlife species and their habitat.
(4) The current Draft LRR and 902 Analysis documents changes in project costs. It does not recommend construction of new features. The project has no adverse impact on species listed as endangered or threatened or their critical habitat.

b. Products to Undergo Type I IEPR. IEPR Exclusion Request Approved 16 April 2012.

c. Required Type I IEPR Panel Expertise. IEPR Exclusion Request Approved 16 April 2012.

d. Documentation of Type I IEPR IEPR Exclusion Request Approved 16 April 2012.

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
441 G STREET, NW
WASHINGTON, DC 20314-1000

REPLY TO
ATTENTION OF

APR 16 2012

CEMP-SWD

MEMORANDUM FOR COMMANDER, SOUTHWESTERN DIVISION

SUBJECT: Corpus Christi Ship Channel (CCSC) Limited Reevaluation Report (LRR), Corpus Christi, Texas - Request for Exclusion from Type I Independent External Peer Review (IEPR)

1. The Headquarters, U.S. Army Corps of Engineers, has reviewed the IEPR exclusion request for the Corpus Christi Ship Channel, Corpus Christi, Texas Navigation Project. While the project does not represent a threat to health and safety; is not controversial; and has not had a request for IEPR from the Governor of an affected State or the head of a Federal or State agency, its cost is estimated to be greater than $45 million. Projects costing over $45 million may be excluded from Type I IEPR when no other mandatory conditions are met, the project does not include an Environmental Impact Statement (EIS), the various aspects of the problems or opportunities being addressed are not complex, and there is no controversy surrounding the study. Based on applicable laws and policy, the request for exclusion is approved.

2. Approval of the exclusion request was based on the following information. There are a total of four separable elements to the $411 million CCSC project which was authorized by Section 1001(40) of the Water Resources Development Act of 2007. Two of the four separable elements were previously reevaluated in 2010. The current LRR is being prepared for the purpose of getting a new authorized project cost pursuant to Section 902 of the Water Resources Development Act of 1986. The LRR is updating the economics and environmental information for the remaining two separable elements - deepening and widening the CCSC and the construction of barge shelves on a portion of the channel. Specifically, these elements include deepening the CCSC to 52 feet and construction of barge shelves at 12 feet deep on both sides of the CCSC for approximately 10 miles. Project formulation has not been affected. Precedent-setting methods or models were not used in the evaluation and the LRR does not include an EIS.

3. Questions or concerns should be directed to Ms. Sandy Gore, Deputy Chief, Southwestern Division Regional Integration Team, at 202-761-5237.

MERDITH W.B. TEMPLE
Major General, USA
Acting Commander

Printed on Recycled Paper

7. POLICY AND LEGAL COMPLIANCE REVIEW

All decision documents will be reviewed throughout the study process for their compliance with law and policy. Guidance for policy and legal compliance reviews is addressed in Appendix H, ER 1105-2-100. These reviews culminate in determinations that the recommendations in the reports and the supporting analyses and coordination comply with law and policy, and warrant approval or further recommendation to higher authority by the home MSC Commander. DQC and ATR augment and complement the policy review processes by addressing compliance with pertinent published Army policies, particularly policies on analytical methods and the presentation of findings in decision documents.

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

All decision documents shall be coordinated with the Cost Engineering DX, located in the Walla Walla District. The DX will assist in determining the expertise needed on the ATR team and Type I IEPR team (if required) and in the development of the review charge(s). The 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 or approved models for all planning activities to ensure the models are technically and theoretically sound, compliant with USACE policy, computationally accurate, and based on reasonable assumptions. Planning models, for the purposes of the EC, are defined as any models and analytical tools that planners use to define water resources management problems and opportunities, to formulate potential alternatives to address the problems and take advantage of the opportunities, to evaluate potential effects of alternatives and to support decision making. The use of a certified/approved planning model does not constitute technical review of the planning product. The selection and application of the model and the input and output data is still the responsibility of the users and is subject to DQC, ATR, and IEPR (if required).

EC 1105-2-412 does not cover engineering models used in planning. The responsible use of well-known and proven USACE developed and commercial engineering software will continue and the professional practice of documenting the application of the software and modeling results will be followed. As part of the USACE Scientific and Engineering Technology (SET) Initiative, many engineering models have been identified as preferred or acceptable for use on Corps studies and these models should be used whenever appropriate. The selection and application of the model and the input and output data is still the responsibility of the users and is subject to DQC, ATR, and IEPR (if required).

a. Planning Models. The following planning models are anticipated to be used in the development of the decision document:

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Certification / Approval Status
Section 902 Analysis Certified Tool	Section 902 Analysis Tool will be used to calculate the maximum project cost (includes the authorized cost (adjusted for inflation), the current cost of any studies, modifications, and action authorized by WRDA '86 or any later law, and 20 percent of the authorized cost (without adjustment for inflation).	Certified
Study Specific Economic Spreadsheet Model	The LRR / 902 Analysis Report presents a Level 2 (Benefit Update) Economic Update to support the previously authorized economic feasibility of deepening and widening HGNC. The Deep Draft Navigation (DDN) Planning Center of Expertise (PCX) will conduct a Level 3 review of the model for the following reasons: 1) Review is for a routine and non-complex model that has a minor impact on project decision-making; and 2) The model platform is Microsoft Excel and the DDNPCX has in-house expertise to review it appropriately.	Level 2 Review of Regional / Local Model (Approval for Single Use is Pending)

b. Engineering Models. The following engineering models are anticipated to be used in the development of the decision document:

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Approval Status
MII Cost Estimating Tool	MII Cost Estimating Tool will be used to estimate the cost of completing the remaining features authorized in the 1995 Houston-Galveston Navigation Channels LRR.	Approved

10. REVIEW SCHEDULES AND COSTS

a. ATR Schedule and Cost.

Estimated schedule for ATR of the draft Feasibility Report
ATR Certification 27 Jul 2012

Total cost was approximately $45K.

b. Type I IEPR Schedule and Cost. IEPR Exclusion Request Approved 16 April 2012.

c. Model Certification/Approval Schedule and Cost. As part of the LRR, the District is performing a Level 2 (Benefit Update) Economic Update to support the previously authorized economic feasibility of deepening and barge shelves. Current schedule shows the final panel review and approval for one-time use of the economic spreadsheet model as occurring on 11 September 2012. Estimated cost $5000.

11. PUBLIC PARTICIPATION

No public participation is anticipated for this project. This expectation is based on no new SEIS or EA accompanying the draft LRR.

12. 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. 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 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.

13. 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	Chief, Planning Section	409-766-3992
Cheryl Jaynes	Planning Lead	409-766-3804
Johnny Grandison	ATR Team Lead	912-652-5754

ATTACHMENT 1: TEAM ROSTERS

ATTACHMENT 2: SAMPLE STATEMENT OF TECHNICAL REVIEW FOR DECSION DOCUMENTS

COMPLETION OF AGENCY TECHNICAL REVIEW

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

SIGNATURE _____ _____

Name Date
ATR Team Leader
Office Symbol/Company

SIGNATURE _____ _____

Name Date
Project Manager
Office Symbol

SIGNATURE _____ _____

Name Date
Architect Engineer Project Manager[1]
Company, location

SIGNATURE _____ _____

Name Date
Review Management Office Representative
Office Symbol

CERTIFICATION OF AGENCY TECHNICAL REVIEW

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

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

SIGNATURE _____ _____

Name Date
Chief, Engineering Division
Office Symbol

SIGNATURE _____ _____

Name Date
Chief, Planning Division
Office Symbol

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

ATTACHMENT 3: REVIEW PLAN REVISIONS

Revision Date	Description of Change	Page / Paragraph Number

ATTACHMENT 4: ACRONYMS AND ABBREVIATIONS

Term	Definition	Term	Definition
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/MSC	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