DEPARTMENT OF THE ARMY
PACIFIC OCEAN DIVISION, U.S. ARMY CORPS OF ENGINEERS
FORT SHAFTER, HAWAII 96858-5440

REPLY TO
ATTENTION OF

CEPOD-PDC

30 October 2012

MEMORANDUM FOR COMMANDER ALASKA ENGINEER DISTRICT (CEPOA-PM-C-PL/BRUCE SEXAUER), P.O. BOX 6898, JBER, AK 99506-0898

SUBJECT: Review Plan Approval for the Point MacKenzie Shoals, Anchorage, Alaska, Feasibility Report.

1. References:

a. Engineering Circular 1165-2-209, Civil Works Review Policy, 31 January 2010, and Change 1, 31 January 2012.

b. Review Plan for the Point MacKenzie Shoals, Anchorage, Alaska, Feasibility Report, Alaska District, U.S. Army Corps of Engineers, 30 October 2012.

2. IAW reference 1.a., the enclosed Review Plan (reference 1.b.) was coordinated with the Deep Draft Navigation Planning Center of Expertise (DDN-PCX) in the Mobile District of the South Atlantic Division, which is the lead office to execute this Review Plan. For further information, contact the DDN-PCX at 251-694-3804. The Review Plan includes Type I Independent External Peer Review.

3. I approve this Review Plan. It is subject to change as circumstances require, consistent with project development under the Project Management Business Process. Subsequent significant revisions to this Review Plan or its execution will require new written approval from this office.

4. The point of contact for this memorandum is Mr. Russell Iwamura, Senior Economist, Civil Works Integration Division, at 808-835-4625 or email Russell.K.Iwamura@usace.army.mil.

Encl

GREGORY J. GUNTER
Colonel, EN
Acting Commander

REVIEW PLAN

Point MacKenzie Shoals, Anchorage, Alaska
Feasibility Report

Alaska District

MSC Approval Date: 30 October 2012
Last Revision Date: None

US Army Corps
of Engineers ®

1. PURPOSE AND REQUIREMENTS

a. Purpose. This Review Plan defines the scope and level of peer review for the Point Mackenzie Shoals, Anchorage, Alaska Feasibility Report.

b. References

(1) Engineering Circular (EC) 1165-2-209, Civil Works Review Policy, 31 Jan 2010 and Change 1, 31 Jan 2012
(2) EC 1105-2-412, Assuring Quality of Planning Models, 31 Mar 2010
(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) Point MacKenzie Shoals Project Management Plan, June 2012
(6) Alaska District (POA) Quality Control Plan
(7) Pacific Ocean Division (POD) 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 and certification (per EC 1165-2-209) and planning model certification/approval (per EC 1105-2-412) and the Value Management Plan requirements in the PMBP REF 8023G and the ER 11-1-321, Change 1.

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 Deep Draft Navigation Planning Center of Expertise (DDN-PCX) is the RMO for the peer review effort described in this Review Plan. Coordination with the DDN-PCX has been accomplished. This is a single purpose project.

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 decision document, the Point McKenzie Shoals, Anchorage, Alaska Feasibility Report, is anticipated to be a feasibility report approved at the

Headquarters, U.S. Army Corps of Engineers (HQUSACE) level with recommendations for project implementation to be authorized by Congress. There is a distinct possibility, however, that a plan will be identified that will not require additional authorization and may be able to be approved at a lower level in the organization. If this becomes the case, coordination between POA, POD, and HQUSACE will be done to determine the right approval level. If that decision affects the requirements of this review plan, then this review plan would also be modified.

b. Study/Project Description. The Point MacKenzie Shoals study is investigating the effects of Point Mackenzie shoal, located in upper Cook Inlet near the Port of Anchorage and Port MacKenzie (Figure 1), upon navigation of container ships, bulk cargo vessels, and other deep draft vessels as they navigate to and from the two local ports.

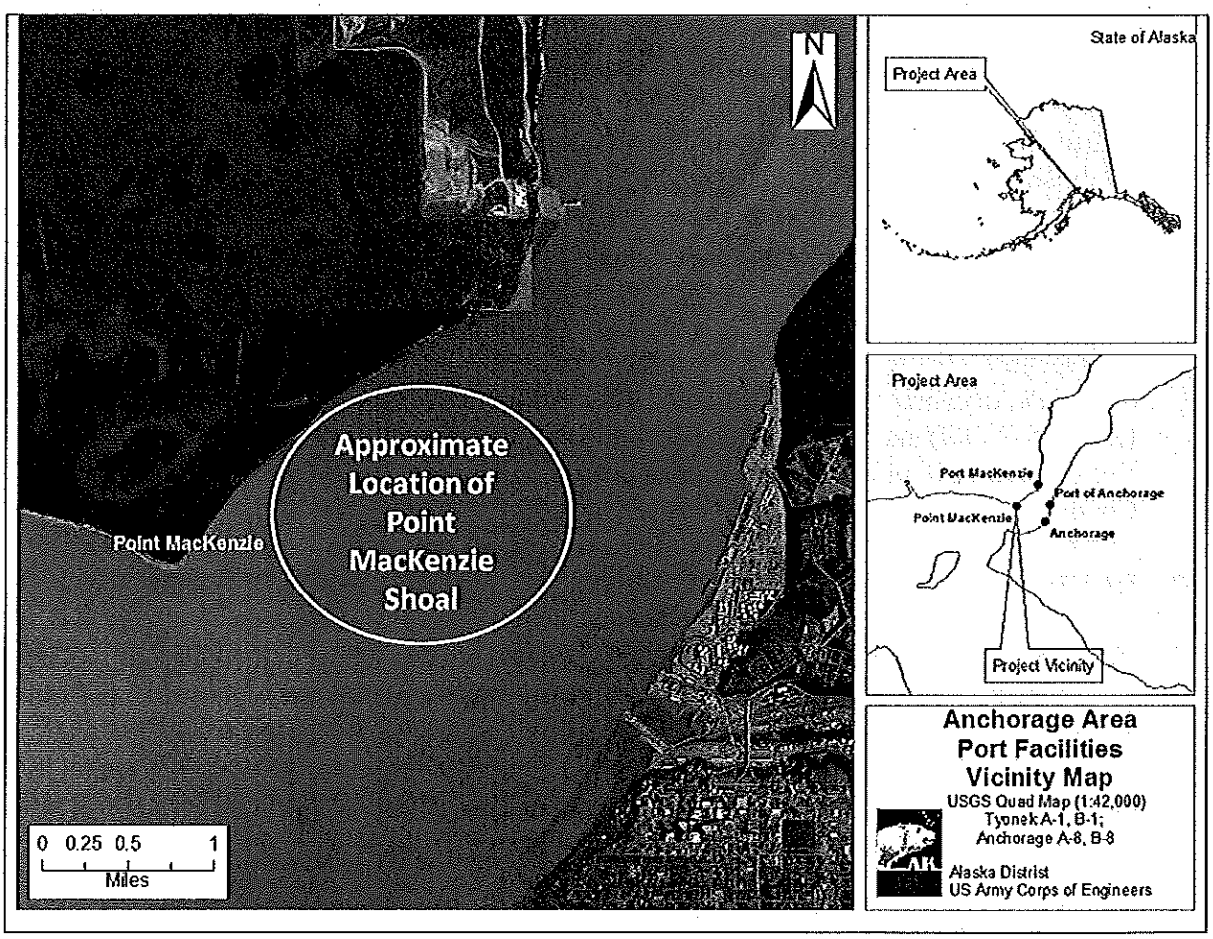

Figure 1 - Port MacKenzie Shoal and Vicinity

The Point MacKenzie shoal has experienced deposition with migration southwards resulting in changes in deep draft navigation routes approaching the Port of Anchorage and Port MacKenzie. Complex piloting conditions caused by an extremely large tidal prism, sea ice, and strong winds, make large vessel navigation to the two ports difficult and sometimes dangerous. Historically, large vessels have experienced delays in Cook Inlet due to shallow

draft conditions, especially across the Knik Arm shoal, a problem which in part resulted in the federally authorized Cook Inlet Navigation Channel maintained to -35 ft MLLW (authorized to -45 ft MLLW). Similar delays related to the Point MacKenzie shoal have been mostly mitigated by shifting the navigation routes to the south, allowing safe passage in deeper water. Concerns remain, however, that if the Point MacKenzie shoal were to grow to a sufficient size, that a dredge channel would be necessary to avoid delays. This study is an investigation of the Point MacKenzie Shoal navigation issues to determine if navigation can be maintained through management measures (i.e. range adjustment and tide cycle timing) or if a dredging project would ultimately be more practicable.

c. **Factors Affecting the Scope and Level of Review.** This study has factors and challenges that may influence the level of review needed for project approval.

- The shoal is located in Cook inlet that experiences very large tidal fluctuations (up to almost 40' in magnitude), severe winds (hurricane force winds have been recorded), ice floe during the winter months, and heavy siltation from areal glacial fed rivers all which make determining shoal dynamics a difficult proposition
- The Corps has significant experience dredging channels in Cook Inlet
- There is a high likelihood that this study will identify a non-structural (no dredging necessary) plan that could be implemented under existing construction authorities.
- The project area is considered critical habitat for the endangered beluga whale.
- A dredging project would likely require an EIS whereas a non structural project may be covered under an existing EA/EIS for an operating project.
- The report is unlikely to contain influential scientific information.
- The project is unlikely to have significant economic, environmental, or social affects if a non-structural option is chosen. There will be environmental impacts if a dredging option is chosen but these have as of yet to be determined.
- This study is unlikely to have significant interagency interest
- This study and resulting project is unlikely to involve significant threat to human life.
- Non-structural measures (i.e. annual monitoring) would have a nominal cost (less than $100k per year). A dredging solution could have a large cost (in excess of $50 million) with a potentially large O&M trail (up to $10 million per year)
- The study and project are not expected to be controversial, create any significant dispute regarding size, cost, economic justification or environmental consideration if a non-structural measure is chosen. A structural measure would be closely scrutinized.
- The study will not rely upon any novel methods, present complex challenges, contain precedent-setting methods or models, nor will it present conclusions that are likely to change prevailing practice.
- The study will assess Safety Assurance factors including:
    - Where failure leads to significant threat to human life
    - Novel methods\complexity\ precedent setting models\policy changing conclusions
    - Innovative materials or techniques
    - Design lacks redundancy, resiliency of robustness
    - Unique construction sequence or acquisition plans

- Reduced\overlapping design construction schedule

d. In-Kind Contributions. Products and analyses provided by non-Federal sponsors as in-kind services are subject to DQC, ATR, and IEPR, however there are no in-kind services being provided as part of this study.

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). POA shall manage DQC. Documentation of DQC activities is required and should be in accordance with the Quality Manual of POA and POD. This Review Plan (RP) is a component of the PMP.

a. Documentation of DQC. DQC will be documented in accordance with POA Civil Works Review policy, specifically utilizing written comments and response sheets for significant issues, and pen and ink mark ups of documents for stylistic or grammatical corrections. The comment sheets will be kept in the project files and will be made available upon request. In addition, POA certifications of the study being ready for Independent Technical Review (ITR) and approval by technical chiefs will be completed.

b. Products to Undergo DQC. The products to undergo DQC will include the decision document, supporting environmental compliance document, as well as technical appendices such as economics, geotechnical, cost estimates, and engineering design. There will be several bathymetric surveys that will be completed as part of the study that will be reviewed by District staff for completeness and accuracy.

c. Required DQC Expertise. DQC will be done by staff with equal to or greater than experience than the production individual. In the case where a junior level person would be generating a product, a journeyman or senior level staff would do the DQC.

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 U.S. Army Corps of Engineers (USACE) guidance, and that the document explains the analyses and results in a reasonably clear manner for the public and decision makers. ATR is managed within USACE by the designated RMO and is conducted by a qualified team from outside POA 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 POD.

a. **Products to Undergo ATR.** Similar to DQC, the products that will undergo ATR are the decision document, supporting environmental compliance document, as well as technical appendices such as economics, geotechnical, cost estimates, and engineering design. There will be several bathymetric surveys that will be completed as part of the study that will be reviewed by District staff for completeness and accuracy. ATR for this study is expected to occur leading up to the identification of the Tentatively Selected Plan (TSP) milestone. No interim ATR is expected to be required for key technical products if a non structural solution is identified. A structural solution may need multiple levels of ATR. At a minimum, eight reviewers are anticipated to conduct the ATR.

b. **Required ATR Team Expertise.**

ATR Team Members/Disciplines	Expertise Required
ATR Lead	The ATR lead should be a senior professional with extensive experience in preparing Civil Works decision documents and conducting ATR. The lead should also have the necessary skills and experience to lead a virtual team through the ATR process. 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 port and harbor facilities. Though this is a deep draft harbor project, container shipments are not prevalent. Bulk commodities and support of resource extraction are the major drivers.
Economics	The Economics reviewer should be experienced in justification of navigation projects related to bulk commodity shipment and similar items. The economics reviewer should be well versed in the utilization of spreadsheet tools for the development of economics products
Environmental Resources	The Environmental reviewer should be familiar with environmental issues related to deep draft ports and environments found in northern Pacific waters and dredge material disposal plans.
Coastal/Hydraulics Engineering	The coastal/Hydrologic & Hydraulic (H&H) reviewer should be experience in the design of GNF features that include dredging.
Geotechnical Engineering	The Geotechnical reviewer should be experienced in the geotechnical sampling and analysis related to the design and construction of deep draft navigation projects.
Cost Engineering	The Cost reviewer should be experienced in the cost engineering related to the design and construction of deep draft navigation projects especially CEDEPS and other related cost engineering tools.
Real Estate	The Real Estate reviewer should be experienced in deep draft

	issues such as determinations of navigation servitude

The ATR team members for this study and a brief description of their credentials will be provided in Attachment 1 once they are selected.

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 Project Delivery Team (PDT) response, a brief summary of the pertinent points in any discussion, including any vertical team coordination (the vertical team includes POA, the RMO, POD, 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 draft report and final report. A sample Statement of Technical Review is included in Attachment 2.

6. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)

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

- Type I 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.** The decision to do IEPR will be deferred until the identification of the TSP milestone approaches. At that time, the team will have formally determined if a dredging project is deemed worthy, or if a non-structural approach is the more appropriate response. A dredging project would likely require an IEPR whereas a non-structural plan

may not. Until such time as this type of TSP can be determined, this review plan will assume an IEPR is necessary and will not recommend submitting a waiver. No request for conducting IEPR has been received by the governor of the state or any other federal agency.

b. **Products to Undergo Type I IEPR.** Similar to DQC, the products that will undergo IEPR are the decision document, supporting environmental compliance document, as well as technical appendices such as economics, geotechnical, cost estimates, and engineering design. There will be several bathymetric surveys that will be completed as part of the study that will be reviewed by District staff for completeness and accuracy.

c. **Required Type I IEPR Panel Expertise.** The expertise for the IEPR panel would likely consist of the disciplines of planning, economics, geotechnical, cost, and design. IEPR would be managed by an Outside Eligible Organization external to the Corps of Engineers. If IEPR is formally determined to be needed, these disciplines will become more apparent and will be added to this Review Plan. The IEPR panel members and a brief description of their credentials will be included in Attachment 1 once they are identified.

d. **Documentation of Type I IEPR.** If Type I IEPR will be conducted, the IEPR will be documented as follows. 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 5.c. 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

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 POD 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. There are no planning models anticipated to be used in the development of the decision document. Spreadsheets will be utilized in the development of the planning products especially in the economic analysis. The economics ATR team member will be tasked with the thorough review of these items.

b. Engineering Models. There are no engineering models anticipated to be used in the development of the decision document.

10. REVIEW SCHEDULES AND COSTS

a. **ATR Schedule and Cost.** The ATR for the Point MacKenzie Shoals study will be accomplished in accordance with the cost and schedule in the Project Management Plan. As of the approval date of this Review Plan, the ATR is scheduled for August 2013 if the tentatively selected plan is non-structural and may be subject to change. If a structural solution is selected, then ATR will occur in November 2013. The ATR is estimated to cost $50,000

b. **Type I IEPR Schedule and Cost.** The IEPR for the Point MacKenzie Shoals study will be accomplished in accordance with the cost and schedule in the Project Management Plan. As of the approval date of this Review Plan, the IEPR is scheduled for early 2014 if a structural alternative is selected that would necessitate an IEPR. The IEPR is estimated to cost $150,000.

c. **Model Certification/Approval Schedule and Cost.** N/A

11. PUBLIC PARTICIPATION

Public Participation will occur after the Tentatively Selected Plan Milestone, which is scheduled for 30 September 2013. A plan that would include dredging would likely result in an EIS and thus would have a more robust public involvement. A non-structural solution would require coordination as well, with a particular focus upon the shipping industry. Public review is scheduled to occur after ATR, however, if a dredging option is chosen, the EIS at the time of ATR would include comments received during the public scoping process.

The public (including scientific and professional societies) may be given the opportunity to nominate potential IEPR reviewers dependent upon the complexities and conflict arising during the study process.

12. REVIEW PLAN APPROVAL AND UPDATES

The POD Commander is responsible for approving this Review Plan. The Commander's approval reflects vertical team input (involving POA, POD, 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. POA is responsible for keeping the Review Plan up to date. Minor changes to the review plan since the last POD Commander approval are documented in Attachment 3. Significant changes to the Review Plan (such as changes to the scope and/or level of review) will be re-approved by the POD Commander following the process used for initially approving the plan. The latest version of the Review Plan, along with the Commander's approval memorandum, will be posted on POA's webpage. The latest Review Plan will also be provided to the RMO and POD.

13. REVIEW PLAN POINTS OF CONTACT

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

- Bruce Sexauer, Project Manager/Planner CEPOA, 907-753-5619
- Russell Iwamura, Lead Economist, CEPOD, 808-835-4625
- Johnny Grandison, RMO Representative, DDN-PCX, 251-694-3804

ATTACHMENT 1: TEAM ROSTERS

Project Delivery Team

NAME	AFFILIATION
Bruce Sexauer PM/Planner	CEPOA-PM-C-PL
Lorraine Cordova Economist	CEPOA-PM-C-PL
Merlin Peterson Hydrology & Hydraulics	CEPOA-EN-ES-HH
Keith Gordon Environmental	CEPOA-EN-ES-ER
John Rajek Geotechnical	CEPOA-EN-ES-GE
Gordy Osgood GIS	CEPOA-EN-ES-GM
Anne Dollard Operations	CEPOA-CO-O
Karl Harvey Cost Engineering	CEPOA-EN-CE
Don Tybus Value Engineer	CEPOA-EN
Amanda Shearer Tribal Liaison	CEPOA-EN-ES-ER

Vertical Team

NAME	AFFILIATION
Linda Hihara-Endo CW Planning Team Leader	CEPOD-PDC
Russell Iwamura Economist	CEPOD-PDC
David Lau CW Programs Team Leader	CEPOD-PDC
Kim Smith HQUSACE	CECW-PC/POD
Andy Miller POD-RIT Civil Works Planner	CEMP-POD

ATR Team to be determined by RMO.

Type I IEPR Panel to be determined by OEO.

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 _____ Date _____

Name
ATR Team Leader
Office Symbol/Company

SIGNATURE _____ Date _____

Name
Project Manager
Office Symbol

SIGNATURE _____ Date _____

Name
Architect Engineer Project Manager[1]
Company, location

SIGNATURE _____ Date _____

Name
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 _____ Date _____

Name
Chief, Engineering Division
Office Symbol

SIGNATURE _____ Date _____

Name
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	Engineer Regulation	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
HQUSACE	Headquarters, U.S. Army Corps of Engineers	RMC	Risk Management Center
IEPR	Independent External Peer Review	RMO	Review Management Organization
ITR	Independent Technical Review	RTS	Regional Technical Specialist
LRR	Limited Reevaluation Report	SAR	Safety Assurance Review
MSC	Major Subordinate Command	TSP	Tentatively Selected Plan
		USACE	U.S. Army Corps of Engineers
		WRDA	Water Resources Development Act