



REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
NORTH ATLANTIC DIVISION, US ARMY CORPS OF ENGINEERS  
FORT HAMILTON MILITARY COMMUNITY  
BROOKLYN, NEW YORK 11252-6700

DEC 14 2012

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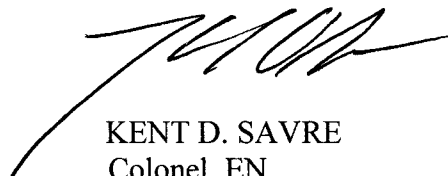
CENAD-PD-PP

MEMORANDUM FOR Commander, New England District, ATTN: CENAE-EP-PS

SUBJECT: Review Plan Approval for Searsport Harbor Navigation Improvement Project,  
Searsport, Maine, Feasibility Study

1. The attached Review Plan for the subject study has been prepared in accordance with EC 1165-2-209, Civil Works Review Policy.
2. The Review Plan has been coordinated with the Deep Draft Navigation Planning Center of Expertise of the South Atlantic Division, which is the lead office to execute this plan. For further information, contact Mr. Bernard Moseby at 251-694-3884. The review plan does not include independent external peer review, as it was deemed not required by Headquarters, U.S. Army Corps of Engineers.
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 revisions to this Review Plan or its execution will require new written approval from this office.

Encl  
as



KENT D. SAVRE  
Colonel, EN  
Commanding

**SEASPORT HARBOR, SEARSPORT MAINE  
NAVIGATION IMPROVEMENT PROJECT  
GENERAL INVESTIGATION  
FEASIBILITY STUDY**

**REVIEW PLAN**

**NEW ENGLAND DISTRICT**

**MSC Approval Date:** Review Plan approved January 22, 2008  
**Last Revision Date:** December 7, 2012



**US Army Corps  
of Engineers ®**

**SEASPORT HARBOR, SEARSPORT MAINE  
NAVIGATION IMPROVEMENT PROJECT  
GENERAL INVESTIGATION  
FEASIBILITY PHASE**

REVIEW PLAN

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## **1. PURPOSE AND REQUIREMENTS**

### **a. Purpose.**

This Review Plan is for the Searsport Harbor Navigation Improvement Project, Searsport Maine, General Investigation (GI), Feasibility Study. The purpose of the plan is to ensure the quality and credibility of assessments and solutions for the navigation improvement investigation and potential project. The plan defines the review process and team members.

### **b. References.**

- (1) Engineering Circular (EC) 1165-2-209, Civil Works Review Policy, 31 Jan 2010
- (2) EC 1105-2-412, Assuring Quality of Planning Models, 31 Mar 2011
- (3) Engineering Regulation (ER) 1110-1-12, Quality Management, 30 Sep 2006
- (4) ER 1105-2-100, Planning Guidance Notebook, Appendix H, Policy Compliance Review and Approval of Decision Documents, Amendment #1, 20 Nov 2007

### **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**

The Review Management Organization (RMO) is responsible for managing the overall peer review effort described in this Review Plan. The RMO is the National Deep Draft Navigation Planning Center of Expertise (DDN-PCX).

### **3. STUDY INFORMATION**

#### **a. Decision Document.**

Study Name: Searsport Harbor, Searsport, Maine, Navigation Improvement Project, Feasibility Study and EA, Searsport, Maine

The Searsport Harbor Navigation Improvement Project Feasibility Study is sponsored by the Maine Port Authority, a division of the Maine Department of Transportation (MEDOT). The documents to be reviewed are the Feasibility Report, NEPA document (Environmental Assessment and FONSI), and appendices.

The scope of the Searsport Harbor Feasibility study and NEPA documents included problem identification, alternatives formulation, alternatives analysis, engineering design, cost estimates, environmental assessment, economic cost-benefit assessment, and identification of the recommend plan of improvement.

#### **b. Study/Project/Description.**

Searsport Harbor is located in upper Penobscot Bay, about 106 miles northeast of Portland, Maine, in Waldo County. Penobscot Bay is located about mid-way along the Maine coast and is the largest of the many bays in the State. Searsport Harbor is divided into two portions. The western area of the Harbor contains the municipal landing and mooring areas for the local commercial fishing fleet and seasonal recreational fleet. The eastern part of the Harbor includes Mack Point, the location of the Harbor's deep draft cargo terminals.

This project concerns the Mack Point port, the principal deepwater commercial port north of Portland. The existing Federal project, authorized by Congress in 1962, and completed in 1964 consists of a channel 35 feet deep at mean lower low water (MLLW), extending from Penobscot Bay to the piers at Mack Point. Existing facilities at Mack Point include two petroleum terminals operated by Sprague Energy and Irving Oil Company, and the State of Maine's public cargo terminal.

The new state pier is accessed by road and by a spur of the Bangor & Aroostook Railroad. The State pier serves multiple shippers handling imports of salt, gypsum, coke, tapioca, and wood chips. Waste paper from the northeast and mid-west is received by rail for export. The State is marketing the pier for expanded imports of wood chips for the area's paper mills and autos. The pier was also recently used to transfer prefabricated structural assemblies shore and onto rail for large windmills for power generation project.

Mack Point is also the site of a former US Air Force fuel depot that received tanker deliveries of jet fuel and others fuels for storage on site and transmission by pipeline and truck to the former Air Force Base at Loring, Maine. The facility has been turned over to the State for reuse.

The existing controlling depths in the Searsport channel are inadequate for existing and future vessel traffic. While the current fleet can access the Mack Point berths, a number of navigational

inefficiencies exist due to existing depths, and result in higher transportation costs. Among these inefficiencies are: tidal delays, light loading of vessels, the inability to switch to larger vessels, the inability to attract liner cargo service, and limits to future imports and exports at Searsport due to channel depths restricting the size of prospective vessels. In addition, the pilots stated that the constriction mid-way between the channel entrance and the turning area requires widening to support the maneuvering of larger vessels. Without channel improvements, the commercial potential of the new State pier will not be realized and existing navigational inefficiencies will continue.

The reconnaissance effort considered a channel depth of 40 feet mean lower low water (MLLW). This channel improvement would allow access for deeper draft vessels and alleviate delays currently experienced while vessels wait for higher tide levels to traverse the channel. Additional improvements, incremental to this plan will be considered during the feasibility study.

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

All decision documents (including supporting data, analyses, environmental compliance documents, etc.) shall undergo District Quality Control (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) and is performed by a team not involved with the day to day execution of the study. 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.

Initial Quality Control (DQC) review is handled within the Section or Branch at New England District performing the work, and by contractors submitting the results of specific field investigations and reports. Additional DQC is performed by the project delivery team (PDT) during the course of the feasibility plan formulation and evaluation process, and during preparation and assembling the draft and final Feasibility Report and NEPA documents. These District level internal checks of engineering, technical, and scientific methodology applied, computations, and assessment are standard operating procedure and normally conducted by Section Chiefs and Team Leaders at NAE.

#### **5. AGENCY TECHNICAL REVIEW**

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.**

- Draft feasibility report and NEPA documents for the Alternative Formulation Briefing.
- Final Draft feasibility report and NEPA documents prior to submittal to the Civil Works Review Board.

**b. Required ATR Team Expertise.**

Team member selections are coordinated with the DDN-PCX to select a qualified ATR team that has experience with navigation studies.

<b>ATR Team Members/Disciplines</b>
ATR Lead (May be responsible for review of one of following disciplines in addition to ATR lead, will be from outside home MSC)
Plan Formulation
Economics
Environmental Resources
Coastal Engineering/Navigation
Geotechnical Engineering
Cost Engineering

**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.

It is suggested that, 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 become 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. A sample Statement of Technical Review is included in Attachment 2.

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

Independent External Peer Review – (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 IEPRs are normally addressed during Preconstruction Engineering and Design (PED) phase of a project. 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.**

An IEPR risk based analysis was conducted for the study and an exclusion request was granted on February 8, 2011 by HQUASCE for the study. See Attachment 4.

### **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 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 for use 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 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 economic spreadsheet model for estimating navigation improvement benefits for the project was approved for single use by HQUASCE Model review panel. This approval is documented in the memorandum dated 19 June 2012 from HQUASCE.

**b. Engineering Models.** No engineering models are anticipated to be used in the study.

## **10. REVIEW SCHEDULE**

- IEPR Exclusion approval – Completed February 8, 2011
- ATR Review of AFB Draft - Completed September 2011
- Economics Spreadsheet model approval for single use - Completed June 19, 2012
- ATR Final DRAFT Documents Review and Cost Certification prior to CWRB, Scheduled for February/March 2012

## **11. PUBLIC PARTICIPATION**

A Public Notice on the availability of the draft Feasibility Report and Environmental Assessment will be issued and provided to interested and appropriate individuals, organizations, and corporations.

## **12. REVIEW PLAN APPROVAL AND UPDATES**

The North Atlantic 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 may be directed to the following points of contact:

Barbara Blumeris, New England District, Planning Branch, 978-318-8737

Lawrence Cocchieri, Deputy Director, Coastal Storm Damage Reduction-PCX, 347-370-4571

Bernard Moseby, Deep Draft Navigation Center of Expertise, 251-694-3884

**ATTACHMENT 1: TEAM ROSTERS**

Bernard Moseby	RMO- POC	SAD, DDN-PCX
Lawrence Cocchieri	MSC	NAD
Catherine Shuman	RIT	HQUASCE

PDT		
Barbara Blumeris	Study Manager	CENAE-EP-SS
Mark Habel	Navigation Team Leader	CENAE-EP-PN
Robert Meader	Design Engineer	CENAE-EP-DC
Mike Remy	Cost Engineer	CENAE-EP-DE
John Winkelman	Coastal Engineer	CENAE-EP-WM
George Claflin	Geology/Geotechnical	CENAE-EP-GG
Karen Umbrell	Economist	CENAE-EP-VC
Catherine Rogers	Environmental	CENAE-EP-VE
Marcos Paiva	Cultural Resources	CENAE-EP-VC
Phil Nimeskern	Marine Analysis Unit	CENAE-R-P

ATR		
Todd Nettles (ATR LEAD)	Economics	CESAM-PD-FE
Johnny Grandison	Plan Formulation	CESAM-PD-FP
Lekesha Reynolds	Environmental	CESAM-PD-EC
Ben Baker	Geotechnical/Geology	CESAJ-PD-PW
Steven Weinberg	Navigation	CESAJ-PD-PW
Wallace Brassfield	Cost	CENWW-EC-X

## ATTACHMENT 2: SAMPLE STATEMENT OF TECHNICAL REVIEW FOR DECISION DOCUMENTS

### COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for the <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<sup>sm</sup>.

SIGNATURE

\_\_\_\_\_  
Name  
ATR Team Leader  
Office Symbol/Company

\_\_\_\_\_  
Date

SIGNATURE

\_\_\_\_\_  
Name  
Project Manager  
Office Symbol

\_\_\_\_\_  
Date

SIGNATURE

\_\_\_\_\_  
Name  
Review Management Office Representative  
Office Symbol

\_\_\_\_\_  
Date

### CERTIFICATION OF AGENCY TECHNICAL REVIEW

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

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

SIGNATURE

\_\_\_\_\_  
Name  
Chief, Engineering Division  
Office Symbol

\_\_\_\_\_  
Date

SIGNATURE

\_\_\_\_\_  
Name  
Chief, Planning Division  
Office Symbol

\_\_\_\_\_  
Date

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

**ATTACHMENT 3: REVIEW PLAN REVISIONS**

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

# ATTACHMENT 4: IEPR EXCLUSION REQUEST APPROVAL



REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS  
WASHINGTON, D.C. 20314-1000

CEMP-NAD


FEB 8 2011

MEMORANDUM FOR Commander, U.S. Army Corps of Engineers, North Atlantic Division  
(ATTN: CENAD-DE)

SUBJECT: Request for Independent External Peer Review (IEPR) Exclusion for Searsport Harbor, Searsport, ME.

1. HQUSACE has reviewed the IEPR exclusion request for the Searsport Harbor Project. Based on applicable laws and policy, this project study is not subject to peer review as it does not meet any of the mandatory requirements. The project has a cost estimate of less than \$45 million; 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.
2. Approval of the exclusion request was based on the following information. The proposed project consists of deepening the existing Federal channel from a current depth of 35 feet to 40 feet. The formulation of this project is not based on novel methods and does not present complex challenges for interpretation or conclusions that are likely to change prevailing practices. Precedent-setting methods or models were not used in the evaluation. The total cost ranges from \$12-18 million depending on the choice of placement site. Three potential disposal sites are considered (two are existing), no significant adverse environment impacts are expected from the dredging and disposal, and an Environmental Impact Statement (EIS) is not required.
3. Questions or concerns should be directed to Mr. Peter Luisa, Deputy Chief, North Atlantic Division Regional Integration Team, at 202-761-5782.

FOR THE COMMANDER:

  
STEVEN L. STOCKTON, P.E.  
Director of Civil Works