

REVIEW PLAN

SHEBOYGAN HARBOR, WISCONSIN INTERIM DREDGED MATERIAL MANAGEMENT PLAN AND ENVIRONMENTAL ASSESSMENT Detroit District

MSC Approval Date: Pending

Last Revision Date: none



**US Army Corps
of Engineers** ®

REVIEW PLAN

**Sheboygan Harbor, WI
Interim Dredged Material Management Plan
And Environmental Assessment**

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1. PURPOSE AND REQUIREMENTS

a. **Purpose.** This Review Plan defines the scope and level of peer review for the Sheboygan , WI Interim Dredged Material Management Plan and Environmental Assessment.

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 (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 Planning Center of Expertise for Inland Navigation (PCXIN).

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.** For the Sheboygan Harbor project, the District has developed an Interim Dredged Material Management Plan (DMMP). The interim plan utilizes a single project-based approach in lieu of the continual 20-year management approach of the typical DMMP. The interim plan is reserved for projects with an advanced schedule and immediate need for implementation, and only when a standard DMMP does not exist for the project harbor. This study is funded through the Great Lakes Restoration Initiative in order to determine the feasibility of maintenance dredging from the Federal channel at Sheboygan Harbor that might support other actions to remove contaminated sediments from the River that are impairing beneficial uses of the waters. The MSC is the appropriate approval authority. The Interim DMMP will contain a draft Environmental Assessment.

- b. Study/Project Description.** This study is conducted under the guidance of the National Harbors Program, Dredged Material Management Plan. The purpose of this Management Plan is to evaluate the existing conditions at Sheboygan Harbor and develop a base plan for routine dredging within the project area and disposal of the sediments.

Sheboygan Harbor is located on the western shore of Lake Michigan at the mouth of the Sheboygan River, Sheboygan, Wisconsin. The City of Sheboygan is approximately 45 miles north of Milwaukee and about 55 miles southeast of Green Bay, Wisconsin. The Sheboygan River drains an area of roughly 400 square miles. The headwaters of the river begin near the southern tip of Lake Winnebago, and meander 80 miles before reaching Lake Michigan.

Several dredging projects under way as part of a multi-phase cleanup project located in the Sheboygan River Area of Concern are being coordinated by the Great Lakes National Program Office (GLNPO) of the United States Environmental Protection Agency (EPA), Region V. of the EPA. Cleanup of the most highly contaminated sediments is completed or will be before the project discussed in this Interim DMMP will start construction. This project is supported by Federal and state agencies involved with these cleanup efforts.

The management measures for this study fall into to the categories that are generally required to complete a dredging project. Those categories are Dredging Depths and Areas, Dredging Method /Equipment, Disposal of Sediments, Transport of Sediments, and a general category of Other. After evaluation of the management measures, the retained measures were formulated into alternatives.

This study identifies a dredging and disposal solution that is the least costly, engineeringly, economically and environmentally feasible project alternative.

Based upon the investigation presented in the Interim Dredged Material Management Plan document, Alternative 2: Chemical Dewatering and Placement in the Locally Provided DMPS, is designated as the "Base Plan". For this alternative, the dredging would be performed by mechanically dredging the sediment with an enclosed clamshell bucket and placed into the barge. Once the material is in the barge, a lime-reaction additive would be mixed to dewater the material. The material will then be transported to the placement site or placed on a dewatering pad at the transfer site prior to transport and disposal as the situation dictates.

It is engineeringly feasible, environmentally acceptable and least costly. The cost of the dredging, transportation and disposal will be fully Federal funded.

For this project, the non-Federal partners have agreed to provide the dredged material placement site to the USACE for use at no cost to the Federal government. This represents a non-Federal investment of approximately \$1,800,000.00.

The Current Working Estimate for the project implementation is \$9,462,388.00.

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

- This document outlines a routine maintenance dredging project

Challenges:

- The sediment in the harbor contains very low level contamination (pcb < 1 ppm)
- EPA has indicated that they anticipate providing \$10M (GLRI funding) towards implementation of the dredging, if the Corps COMPLETES dredging in FY12
- Several dredging projects are under way or being planned as part of a multi-phase cleanup project located in the Sheboygan River Area of Concern are being coordinated by the Great Lakes National Program Office of the EPA. Cleanup of the most highly contaminated sediments is completed or will be before the project discussed in this Interim DMMP starts construction

Risks:

- The Corps risks losing EPA funding (\$10M) for construction if a contract is not COMPLETED in FY12

Significant Interagency Interests:

- Environmental Protection Agency

Human Safety:

- No risks to human safety associated with this project

Controversial Issues:

- None

d. In-Kind Contributions. NONE

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 in the home 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 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. The Major Subordinate Command (MSC)/District quality management plans address the conduct and documentation of this fundamental level of review; DQC is not addressed further in this review plan.

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.

- Interim Dredged Material Management Plan
- Environmental Assessment

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 routine Strategic Navigation Dredging (SND)
Environmental Resources (NEPA)	Experience in NEPA for routine disposal of dredged material
Cost Engineering	Experience in cost engineering for routine SND

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.

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. Based on the information and analysis provided in paragraph 3(c) of this review plan, the project covered under this plan is excluded from IEPR because it does not meet the mandatory IEPR triggers and does not warrant IEPR based on a risk-informed analysis.

b. Products to Undergo Type I IEPR. Not Applicable

c. Required Type I IEPR Panel Expertise. Not Applicable

d. Documentation of Type I IEPR. Not Applicable

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: **Not Applicable**
- b. **Engineering Models.** The following engineering models are anticipated to be used in the development of the decision document: **Not Applicable**

10. REVIEW SCHEDULES AND COSTS

a. ATR Schedule and Cost.

TASK	Proposed Start Date
Update of Project Review Plan	As Required
Coordinate with MSC and post on website	TBD
PCX identifies ATR team and appropriate RMO	07 November 2011
ATR	14 November 2011
Public Review of Environmental Assessment	December 2011

The estimated cost for the ATR is **\$15,000**.

- b. **Type I IEPR Schedule and Cost. Not Applicable**
- c. **Model Certification/Approval Schedule and Cost. Not Applicable**

11. PUBLIC PARTICIPATION

State and Federal resource agencies may be invited to participate in the study covered by this review plan as partner agencies or as technical members of the PDT, as appropriate. Agencies with regulatory review responsibilities will be contacted for coordination as required by applicable laws and procedures.

The ATR team will be provided copies of public and agency comments. The Environmental Assessment will each be posted for 30 day public comment period. This Review Plan will be posted on the District's internet site and comments from the public will be accepted

12. REVIEW PLAN APPROVAL AND UPDATES

The Great Lakes and Ohio River 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:

- | | | |
|---------------------|---|----------------|
| ▪ Terry Long | Chief of Plan Formulation/Project Manager | (313) 226-2223 |
| ▪ Jon Imbrunone | Project Manager/Planner | (313) 226-6815 |
| ▪ Pauline Thorndike | Division Liaison | (513) 684-6212 |
| ▪ Wesley Walker | PCXIN | (304) 399-6938 |

ATTACHMENT 1: TEAM ROSTERS

District PDT Roster

Discipline	Name	Office/Agency
Chief of Plan Formulation / Project Manager	Terry Long	CELRE-PL-P
Project Manager / Principal Planner	Jon Imbrunone	CELRE-PL-P
Economist	Ashley Binion	CELRE-PL-P
Design Engineer/ Technical Lead	Kerry Williams	CERLE-EC-C
Cost Engineer	Sheetal Malhotra	CERLE-EC-C
Environmental Speacialist (Contaminants)	Pam Horner	CELRE-PL-E
Environmental Speacialist (Contaminants)	Amanda McCallister	CELRE-PL-E
Environmental Speacialist (NEPA)	Bridget Rohn	CELRE-PL-E
Real Estate Specialist	Shawn Sanchez	CELRE-RE
Project Management (O&M)	Angie Mundell	CELRE-OT
Lead Geotechnical Engineer	Tina Kowitz	CERLE-EC-G
Construction Administration Branch	Leigh Ann Ryckegham	CERLE-EC-C
Archeologist	Karen Krepps	CELRE-PL-E
Chief of Structural and Geotechnical Engineering	Phil Ross	CERLE-EC-G
Chief Constructiun, Cost and General Engineering	Bill Merte	CERLE-EC-C

ATR Team Roster

Discipline	Name	Office/Agency
ATR Lead/ Environmental Analysis	Mark Cornish	MVR
Planning Review	David Bucaro	LRC
Planning Review	Sara Brodzinsky	LRC
Cost Engineering	George Chartouni	LRC

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 DrCheckssm.

SIGNATURE

Name
ATR Team Leader
Office Symbol/Company

Date

SIGNATURE

Name
Project Manager
Office Symbol

Date

SIGNATURE

Name
Architect Engineer Project Manager¹
Company, location

Date

SIGNATURE

Name
Review Management Office Representative
Office Symbol

Date

CERTIFICATION OF AGENCY TECHNICAL REVIEW

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

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

SIGNATURE

Name
Chief, Engineering Division
Office Symbol

Date

SIGNATURE

Name
Chief, Planning Division
Office Symbol

Date

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/MSD	The District or MSD 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