

REVIEW PLAN

Ashtabula Strategic Navigation Dredging, Ashtabula Harbor, Ohio

Interim Dredged Material Management Plan

Buffalo District

Last Revision Date: 29 November 2011

MSC Approval Date: 14 March 2012



**US Army Corps
of Engineers ®**

REVIEW PLAN

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Interim Dredged Material Management Plan

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1. PURPOSE AND REQUIREMENTS

Purpose. This Review Plan defines the scope and level of peer review for the Ashtabula Strategic Navigation Dredging Interim Dredged Material Management Plan

a. 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

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

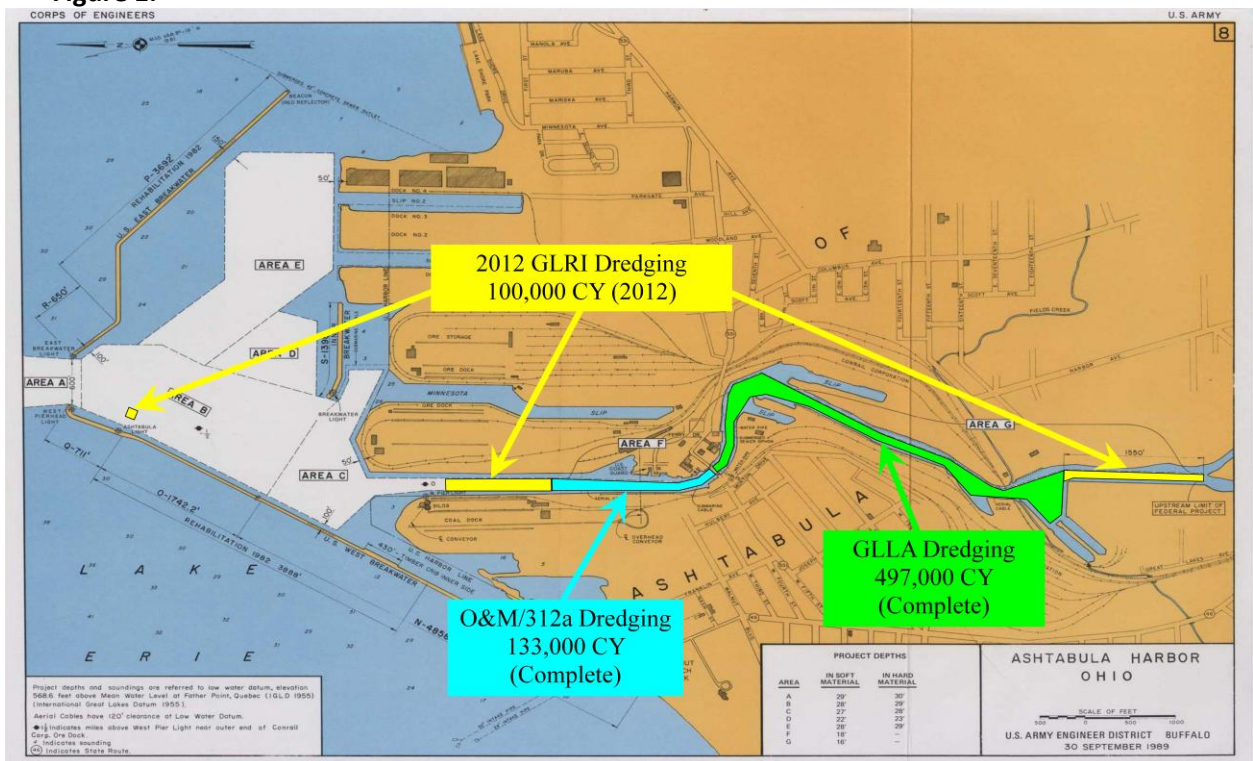
The RMO will coordinate with the Cost Engineering Directory of Expertise (DX) to ensure the appropriate expertise is included on the review teams to assess the adequacy of cost estimates, construction schedules and contingencies.

3. STUDY INFORMATION

- a. **Decision Document.** Ashtabula Harbor was initially authorized by the River and Harbor Act of 1896 with subsequent authorizations in 1905, 1910, 1919, 1935, 1947, 1960 and 1965. Strategic Navigation Dredging (SND) refers to projects which utilize funding from the Great Lakes Restoration Initiative (GLRI) to remove sediments from areas within the authorized channel that would not favorably compete for limited base funds for navigation dredging but need to be removed in order to eliminate one or more beneficial use impairments (BUIs). An Interim Dredged Material Management Plan is being prepared for this project, as prescribed in the 08 February 2011 Policy Guidance Memorandum from LRD to LRB. At this point it is assumed that MSC has approval authority. Congressional Authorization is not required. An Environmental Assessment/Finding of No Significance Impacts will be prepared separately. LRB is requesting approval of the Interim DMMP contingent upon completion of the EA/FONSI prior to contract advertisement.

- b. **Study/Project Description.** The objective of Strategic Navigation Dredging of Ashtabula Harbor in 2012 is to remove all remaining material which is unsuitable for open-lake placement from three targeted areas of the Federal Navigation Channel. This “Management Activity” will result in the delisting of the Restrictions on Dredging Beneficial Use Impairment in the Ashtabula River Area of Concern (AOC). Delisting of this BUI and the AOC as a whole are considered top regional priorities for the USEPA. Although an economic evaluation of the harbor has been conducted based on navigational benefits, the primary justification for this dredging project will be those unorthodox benefits associated with delisting of the Area of Concern. Those areas to be dredged are shown in the Figure below, labeled 2012 GLRI Dredging. Total project cost is estimated to be approximately \$10M and there are no fees associated with the disposal site.

Figure 1.



Only one reasonably foreseeable alternative for placement of this material has been identified. Approximately 100,000 cubic yards of material will be excavated from select areas of the Federal channel, transported by barge to an off-loading site, and then transported by truck to a partner-furnished disposal location. Project Partners- the Ashtabula City Port Authority and Elkem Metals Inc. will provide closed lagoons located in the Elkem facility for final placement of the material. There will be no non-Federal Sponsor as no construction or cost-share will be required.

The Interim Dredged Material Management Plan will describe the one feasible alternative with an acceptable placement site and contain a cost estimate based on placement at that site. NEPA compliance will be demonstrated separately in an EA/FONSI.

c. Factors Affecting the Scope and Level of Review.

Challenges: The measures involved in Strategic Navigational Dredging of Ashtabula harbor are not expected to generate significant technical, institutional, or social challenges. However, the schedule leading to contract award is extremely aggressive. As such, District requests that review by the ATR Team and CELRD staff be expedited.

Project Risks: Preliminary project risks are outlined in Attachment 5. The risks associated with this project are generally considered low due to the routine nature of dredging and dredge material placement operations. The most significant risk associated with this project is the aggressive schedule leading to contract. Failure to meet this schedule may result in delays in project implementation.

Life Safety: The project will neither be justified by life safety or will involve significant threat to human life/safety assurance. There is no reason to believe that any measures involved in the project are associated with a significant threat to human life.

Governor Request for Peer Review: The Governor **has not** requested peer review by independent experts.

Public Dispute: The project/study is not anticipated to be controversial nor result in significant public dispute as to the size, nature, or effects of the project or to the economic or environmental costs or benefits of the project. The significance of this project is being emphasized at the highest levels of the USEPA and has been identified as a key metric of the Great Lakes Restoration Initiative.

Decision Document Information: The information in the decision document will take advantage of prevailing practices and methodologies. It is not expected to be based on novel methods or involve the use of innovative techniques, or present complex challenges for interpretation. The primary goal of this project is to complete a management activity required for delisting of the Ashtabula River Area of Concern. As this project is classified as "Strategic Navigation Dredging", the justification for implementation of this project transcends traditional navigational benefits.

Construction Sequencing/Redundancy: It also **not** anticipated that the project will require unique construction sequencing or redundancy.

Other Project information

- Project has significant support from MSC (CELRD) and USACE HQ.
- The required elements of the Interim Dredged Material Management Plan were derived from a direct interpretation of the PGM dated 8 February 2011 and subsequent correspondence with LRD.
- The economic evaluation of the harbor included in the Interim DMMP is based on the evaluation included in the 2010 Ashtabula Harbor Preliminary Assessment (PA), updated to reflect current price levels. Since an ATR was previously completed for the PA, LRB recommends that the Economic Review consist of a backcheck.
- The Environmental Assessment/Finding of No Significant Impact will be submitted for review separately.

d. In-Kind Contributions. This project is not cost shared, therefore there are no project sponsors or in-kind contributions. However, project partners, the Ashtabula City Port Authority and Elkem Metals Inc. will be supplying the final disposal location for dredge material i.e. closed lagoons located in the Elkem facility.

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. District Quality Control will be completed following the guidelines set forth in Section 7.2 District Quality Control (DQC) and Agency Technical Review (ATR) of the 14 February 2011 CELRD Quality Management System (QMS) Document ID: 4921: QC / QA Procedures for Civil Works. Documentation is available at

<http://pmbpmanual.lrl.usace.army.mil/QualTrax/Quality/ASP/Default.asp?PageID=20000100&TS=40756.6538425926&DocID=4921&ExtendedResults=>

Following the completion of the DQC review by the PDT members and their respective counterparts as necessary, the PDT will sign a certification sheet documenting DQC. The Chief of Planning will also sign a certification sheet documenting that District Quality Control has been completed. Upon request, both certification sheets will be provided to the ATR team prior to their review of the DMMP.

b. Products to Undergo DQC.

1. Review Plan
2. Draft Environmental Assessment/Finding of No Significant Impact
3. Draft Interim Dredge Material Management Plan

c. Required DQC Expertise. Additional DQC of all products will be accomplished by senior (GS-12 or above) staff not directly involved in preparation of the products from the following disciplines:

1. Planning
2. Project Management
3. Design
4. Operations

- 5. Environmental
- 6. Office of Counsel
- 7. Real Estate
- 8. Cost Engineering

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 primary products to be reviewed are versions of the Interim Draft Dredge Material Management Plan and Environmental Assessment (EA). Interim reviews of the key technical products will occur during review of the Feasibility Scoping Meeting documentation, Alternative Formulation Briefing documentation, and draft Feasibility Study Report and draft Environmental Impact Statement documentation.

- 1. Draft Environmental Assessment/Finding of No Significant Impact
- 2. Draft Interim Dredge Material Management Plan

Supporting analysis and documents, including but not limited to the following will also be subject to Agency Technical Review:

- (1) Economic analysis and appendices
- (2) Cost estimates
- (3) Supporting environmental analysis (cultural resources, resource inventories, etc.)

b. Required ATR Team Expertise. The expertise/disciplines represented on the ATR team should reflect the significant disciplines involved in the planning effort. The PDT has determined that the expertise needed for review shall include Environmental Planning and Analysis, Inland Navigation & Economics, Coastal Engineering, Geotechnical Engineering, and Real Estate. The roster of the ATR team and the expertise required is outline in the table that follows.

Name, Credentials, Years of Experience	Organization	Contact Information	Discipline	Expertise Required
[REDACTED]	CEMVP-PD-P	[REDACTED]	ATR Lead	The ATR lead should be a senior professional with extensive experience in preparing Civil Works decision documents and conducting ATR's. The lead should also have the necessary skills

				and experience to lead a virtual team through the ATR process.
██████████ ██████████	CELRC-TS-D-C	████████████████████ ██████████	Cost	Team member will be experienced in operations and maintenance of Federal harbors.
██████████ ██████████	CELRH-NC	████████████████████ ██████████	Economics	Team member will be experienced in operations and maintenance of Federal harbors.
██████████ ██████████	CELRC-PM-PL	████████████████████ ██████████	PCXIN Coordination	The Planning reviewer should be a senior water resources planner with experience in operations and maintenance of Federal harbors.
██████████ ██████████	CELRC-PM-PL-F	████████████████████ ██████████	Planning	The Planning reviewer should be a senior water resources planner with experience in operations and maintenance of Federal harbors.
██████████ ██████████	CELRC-PM-PL-F	████████████████████ ██████████	Planning	The Planning reviewer should be a senior water resources planner with experience in operations and maintenance of Federal harbors.
██████████ ██████████	CEMVP-PD-P	████████████████████ ██████████	Environmental Compliance	Technical specialist for environmental assessment related to operations and maintenance of Federal harbors. Familiar with the NEPA process.
██████████ ██████████	CELRN-RE-B	████████████████████ ██████████	Real Estate	Team member will be experienced with lands, easements, rights-of-way, relocation, and disposal real estate processes.

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 criteria set forth in EC1165-2-209, the proposed study will not require Type I or Type II IEPR. The project study does not pose a significant threat to human life; the estimated total cost of the project is less the \$45 million; the governor of the State has not requested a peer review by independent experts; and the DCW or the Chief of Engineers has not determined the project study to be controversial in nature or to result in significant public dispute over either the size, nature, or effects of the project or the economic or environmental costs or benefits of the project. Furthermore, the project consists of a one-time placement of material, similar to a Section 204, Beneficial Use of Dredged Material Project. Due to its similar nature, this project qualifies for a programmatic exclusion from IEPR.
- 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.** Planning Models are not expected to be used for this project.
- b. **Engineering Models.** Engineering Models are not expected to be used for this project.

10. REVIEW SCHEDULES AND COSTS

- a. **ATR Schedule and Cost.** The following Table contains the initial estimates for the ATR schedule and cost as determined by the Buffalo District PDT. It is subject to further coordination and negotiation with the vertical team, ATR Team, and the relevant Planning Centers of Expertise.

Item to Undergo ATR	Schedule	Estimated Cost (by PDT) for ATR
Draft Report and DEA	Nov 2011 – Dec 2011	\$16.5K

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

11. PUBLIC PARTICIPATION

Throughout the scoping process, stakeholders and interested parties are invited to provide comment on the alternatives that will be evaluated in the Ashtabula Harbor Strategic Navigation Dredging - Material Disposal Project. An Environmental Analysis will address the potential social, economic and environmental benefits and adverse impacts that would result from each alternative plan selected for detailed analysis. A mandatory public comment period will be included in the Environmental Assessment.

12. REVIEW PLAN APPROVAL AND UPDATES

The MSC (CELRD) 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.

ATTACHMENT 1: TEAM ROSTERS

Project Development Team

Name	Function	Organization	Phone	Email
[REDACTED]	Project Manager	USACE-Buffalo	[REDACTED]	[REDACTED]
[REDACTED]	Plan Formulator	USACE-Buffalo	[REDACTED]	[REDACTED]
[REDACTED]	Environmental Analysis	USACE-Buffalo	[REDACTED]	[REDACTED]
[REDACTED]	Geotechnical Engineering	USACE-Buffalo	[REDACTED]	[REDACTED]
[REDACTED]	Economics	USACE-Buffalo	[REDACTED]	[REDACTED]
[REDACTED]	Real Estate	USACE-Buffalo	[REDACTED]	[REDACTED]
[REDACTED]	Legal Counsel	USACE-Buffalo	[REDACTED]	[REDACTED]
[REDACTED]	Outreach Coordinator	USACE-Buffalo	[REDACTED]	[REDACTED]
[REDACTED]	Cost Engineering	USACE-Buffalo	[REDACTED]	[REDACTED]
[REDACTED]	Program Analyst	USACE- Buffalo	[REDACTED]	[REDACTED]
[REDACTED]	Env. Engineering	USACE-Buffalo	[REDACTED]	[REDACTED]
[REDACTED]	Civil/Structural Design	USACE-Buffalo	[REDACTED]	[REDACTED]

ATR TEAM

Name,	Organization	Contact Information	Discipline	Cost
[REDACTED]	CEMVP-PD-P	[REDACTED]	ATR Lead	2k
[REDACTED]	CELRC-TS-D-C	[REDACTED]	Cost	3k
[REDACTED]	CELRH-NC	[REDACTED]	Economics	2.5
[REDACTED]	CELRC-PM-PL	[REDACTED]	PCXIN Coordination	2.5
[REDACTED]	CELRC-PM-PL-F	[REDACTED]	Planning	2.5
[REDACTED]	CELRC-PM-PL-F	[REDACTED]	Planning	1k
[REDACTED]	CEMVP-PD-P	[REDACTED]	Environmental Compliance	2k
[REDACTED]	CELRN-RE-B	[REDACTED]	Real Estate	1k

VERTICAL TEAM

Name	Location	Phone	Email
[REDACTED]	LRC	[REDACTED]	[REDACTED]
[REDACTED]	LRDOR	[REDACTED]	[REDACTED]
[REDACTED]	CECW-LRD	[REDACTED]	[REDACTED]

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 _____ Date _____
Name
ATR Team Leader
Office Symbol/Company

SIGNATURE _____ Date _____
Name
Project Manager
Office Symbol

SIGNATURE _____ Date _____
Name
Architect Engineer Project Manager¹
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
DMMP	Dredge Material Management Plan		
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

ATTACHMENT 5: PRELIMINARY RISK EVALUATION

Risk Factor	Event	Probability of Occurrence	Severity of Risk	Overall Project Risk	Risk Response/Control (Ac)-Accept (Av)-Avoid (M)-Mitigate
HEALTH & SAFETY	Minor injury requiring first aid	Seldom	Negligible	Low	(Av) Follow Health & Safety Plan
	Minor injury/accident	Seldom	Marginal	Low	(Av) Follow Health & Safety Plan
	Major accident with permanent partial/temporary total disability >3 months	Unlikely	Critical	Low	(Av) Follow Health & Safety Plan
	Major accident causing death or permanent total disability	Unlikely	Catastrophic	Low	(Av) Follow Health & Safety Plan
COST SHORTAGE/OVERRUN	Insignificant cost increase	Likely	Negligible	Low	(Ac) Update 2101 form monthly
	5-10% cost increase	Seldom	Marginal	Low	(M) Update 2101, reallocate resources
	10-20% cost increase	Unlikely	Critical	Low	(M) Update 2101, reallocate resources
	>20% cost increase	Unlikely	Catastrophic	Low	(Av) Revise Scope of Work
SCHEDULE DELAYS	Insignificant schedule slippage	Likely	Negligible	Low	(Ac) Adjust Milestone date
	5-10% schedule slippage	Seldom	Marginal	Low	(M) Adjust Milestone date; Increase progress reporting frequency
	10-20% schedule slippage	Unlikely	Critical	Low	(M) Adjust Milestone date; Increase progress reporting frequency
	>20% schedule slippage	Unlikely	Catastrophic	Low	(M) Adjust project completion date
SCOPE OF WORK	Scope change barely noticeable	Seldom	Negligible	Low	(M) Update PMP; Follow Communications Plan
	Minor areas of scope are affected	Seldom	Marginal	Low	(M) Update PMP; Follow Communications Plan
	Scope change unacceptable to customer	Unlikely	Critical	Low	(Av) Review SOW w/Stakeholders
	Project end item is effectively useless	Unlikely	Catastrophic	Low	(Av) Review goals & objectives
QUALITY ISSUES	Quality degradation barely noticeable	Seldom	Negligible	Low	(Av) ATR; Follow QCP/QAP and review plan
	Quality reduction requires customer approval	Unlikely	Marginal	Low	(Av) ATR; Follow QCP/QAP and review plan
	Quality reduction unacceptable to customer	Unlikely	Critical	Low	(Av) ATR; Follow QCP/QAP and review plan
	Project end item is effectively useless	Unlikely	Catastrophic	Low	(Av) ATR; Follow QCP/QAP and review plan
PROJECT SPECIFIC	Full GLRI funding will not be received until year 3/FY12 GLRI	Likely	Critical	High	(Av) Understand budgetary needs and communicate capabilities
	Local partners do not complete required modification to existing disposal location	Unlikely	Critical	Moderate	(Av) Maintain communication regarding partner progress throughout project.
	EPA management decides not to fund project. Decides to handle themselves.	Seldom	Marginal	Low	(Ac) Funding decisions are at discretion of EPA.