



DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DIVISION, GREAT LAKES AND OHIO RIVER
CORPS OF ENGINEERS
550 MAIN STREET
CINCINNATI, OH 45202

CELRD-PD

29 Mar 2012

MEMORANDUM FOR COMMANDER, Buffalo District

SUBJECT: Review Plan for Cleveland Harbor, Interim Dredged Material Management Plan, Cleveland, Ohio

1. The attached Review Plan (RP) for the Cleveland Harbor, Interim Dredged Material Management Plan (IDMMP) Review Plan is presented to the Great Lakes and Ohio River Division for approval in accordance with EC 1165-2-209 "Civil Works Review" dated 31 January 2010.
2. Since the selected plan of the Draft Dredged Material Management Plan (DMMP) lost local sponsor support in 2009, the Buffalo District has been pursuing interim measures that maximize existing capacity so that the District can continue to maintain the federal channel to minimum standards until a longer term solution can be identified through the USACE planning process. As a result, an In Progress Review (IPR) was held between the Buffalo District and the Great Lakes and Ohio River Division (LRD) in October 2011, to determine the path forward. LRD agreed with the District's recommendation to prepare an Interim DMMP.

Existing dredged material capacity is projected to be exhausted at the conclusion of the 2014 dredging season. Currently, no short-term or long-term dredged material management measures have been approved for future years.

Given the long lead times that would be needed to reformulate a long-term (20-year) dredged material disposal plan for Cleveland Harbor, including time for sediment testing in 2012, evaluation of stockpiling and recycling feasibility at the existing CDFs, and working out the details of non-Federal cost-sharing, the determined path forward is to formulate, evaluate and gain LRD approval of an Interim DMMP/EA for short-term management plans for the years 2015 to 2018.

At this time, no formally approved decision document exists that would allow for any work related to dredged material management at Cleveland Harbor beyond the current management practices. To implement, even short term measures of a few years (roughly 2015 through 2018) of upland placement at locally provided sites would require detailed formulation and design of alternatives, a decision document, and at a minimum an Environmental Assessment (EA) and Finding of No Significant Impact (FONSI).

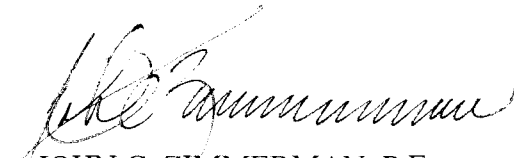
Therefore, the Buffalo District has concluded that it would be more prudent to split out an evaluation of measures for short term 2015-2018 dredged material management at

SUBJECT: Review Plan for Cleveland Harbor, Interim Dredged Material Management Plan, Cleveland, Ohio

Cleveland. This could be accomplished by preparation of an "Interim" DMMP and Environmental Assessment. This interim DMMP/EA could be completed in about one year's time, would not require any unusual level of technical review (e.g. IEPR) and will be approved at the MSC level.

3. The Planning Center of Expertise for Inland Navigation (PCXIN) has reviewed the attached Review Plan for technical sufficiency and policy compliance and provided its endorsement via letter (attached).
4. Upon approval of this RP by the MSC Commander, the District is requested to post the RP to its web site and provide the link to the PCXIN for their files. Prior to posting, the names of all individuals identified in the RP should be removed.
5. If you have any questions or need additional information, please contact Dr. Hank Jarboe, CELRD-PDS-P, at (513) 684-6050.

2 Encls



JOHN C. ZIMMERMAN, P.E.
Chief, Planning and Policy Division
Great Lakes and Ohio River Division



DEPARTMENT OF THE ARMY
HUNTINGTON DISTRICT, CORPS OF ENGINEERS
502 EIGHT STREET
HUNTINGTON, WEST VIRGINIA 25701-2035

REPLY TO
ATTENTION OF

CELRH-NC

24 February 2012

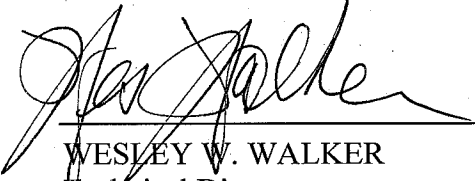
MEMORANDUM FOR Commander, Buffalo District

SUBJECT: Review Plan for the Cleveland Harbor, Cleveland, OH Interim Dredged Material Management Plan (IDMMP) and Environmental Assessment

1. The enclosed Review Plan (RP) has been presented to the Planning Center of Expertise for Inland Navigation (PCXIN) for its review and endorsement in accordance with EC1165-2-209 "Civil Works Review" dated 31 January 2010.
2. Cleveland Harbor, Cuyahoga County, Ohio, is located on the south shore of Lake Erie at the mouth of the Cuyahoga River. The port is 28 miles east of Lorain, Ohio and 33 miles west of Fairport, Ohio (Figure 1). Cleveland Harbor is a major commercial port on Lake Erie. The IDMMP will examine the alternatives for upland beneficial uses versus the modifications necessary at the Confined Disposal Facilities to accommodate mechanical placement and capacity optimization.
3. The purpose of the project is continued maintenance of an existing deep-draft harbor.
4. PCXIN staff has reviewed the plan for technical sufficient and policy compliance. Since this is an Interim DMMP for a one time single event approved at the MSC level, it does not meet the mandatory Independent External Peer Review triggering criteria outlined in EC 1165-2-209. The Interim DMMP does employ the use of the Great Lakes System Analysis of Navigation Depths (GL-SAND). Certification is pending at Headquarters.
5. I concur with the findings of the PCXIN technical staff and endorse the enclosed review plan for the Cleveland Harbor, Cleveland, OH Interim Dredged Material Management Plan (IDMMP) and Environmental Assessment. Following approval by the Great Lakes and Ohio River and Division, Buffalo District is requested to post the Review Plan to its web site and provide the link to the PCXIN for their use. Prior to posting, the names of the individuals in the RP should be removed.

6. If you have any questions or need additional information, please contact Ms. Beth Cade of my staff at (304) 399-5848.

Encl



WESLEY W. WALKER
Technical Director
PCX for Inland Navigation

REVIEW PLAN

Cleveland Harbor, Ohio Interim Dredged Material Management Plan and Environmental Assessment

Buffalo District

**MSC Approval Date: 29 March 2012
Last Revision Date: February 2012**



**US Army Corps
of Engineers ®**

REVIEW PLAN

Cleveland Harbor, Ohio Interim Dredged Material Management Plan and Environmental Assessment

TABLE OF CONTENTS

1. PURPOSE AND REQUIREMENTS.....	1
2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION.....	1
3. STUDY INFORMATION.....	1
4. DISTRICT QUALITY CONTROL (DQC).....	5
5. AGENCY TECHNICAL REVIEW (ATR).....	5
6. INDEPENDENT EXTERNAL PEER REVIEW (IEPR).....	7
7. POLICY AND LEGAL COMPLIANCE REVIEW.....	8
8. COST ENGINEERING DIRECTORY OF EXPERTISE (DX) REVIEW AND CERTIFICATION.....	9
9. MODEL CERTIFICATION AND APPROVAL.....	9
10. REVIEW SCHEDULES AND COSTS.....	10
11. PUBLIC PARTICIPATION.....	11
12. REVIEW PLAN APPROVAL AND UPDATES.....	11
13. REVIEW PLAN POINTS OF CONTACT.....	11
ATTACHMENT 1: TEAM ROSTERS.....	12
ATTACHMENT 2: SAMPLE STATEMENT OF TECHNICAL REVIEW FOR DECISION DOCUMENTS.....	14
ATTACHMENT 3: REVIEW PLAN REVISIONS.....	15
ATTACHMENT 4: ACRONYMS AND ABBREVIATIONS.....	16

1. PURPOSE AND REQUIREMENTS

a. **Purpose.** This Review Plan defines the scope and level of peer review for the Cleveland Harbor, Cleveland, OH Interim Dredged Material Management Plan (IDMMP) and Environmental Assessment

b. References

- (1) Engineering Circular (EC) 1165-2-209, Civil Works Review Policy, 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) Project Management Plan for Cleveland Harbor DMMP/EIS

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 the Cleveland Harbor IDMMP is the Planning Center of Expertise (PCX) for Inland Navigation.

The RMO will coordinate with the Cost Engineering Directory of Expertise (DX) in the Walla Walla District 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 – Cleveland Harbor Interim Dredged Material Management Plan/Environmental Assessment.

Since the selected plan of the Draft Dredged Material Management Plan (DMMP) lost local sponsor support in 2009, the Buffalo District has been pursuing interim measures that maximize existing capacity so that the District can continue to maintain the federal channel to minimum standards until a longer term solution can be identified through the USACE planning process. As a result, an In Progress Review (IPR) was held between the Buffalo District and the Great Lakes and Ohio River Division (LRD) in October 2011, to determine the path forward. LRD agreed with the District's recommendation to prepare an Interim DMMP.

Existing dredged material capacity is projected to be exhausted at the conclusion of the 2014 dredging season. Currently, no short-term or long-term dredged material management measures have been approved for future years.

Given the long lead times that would be needed to reformulate a long-term (20-year) dredged material disposal plan for Cleveland Harbor, including time for sediment testing in 2012, evaluation of stockpiling and recycling feasibility at the existing CDFs, and working out the details of non-Federal cost-sharing, the determined path forward is to formulate, evaluate and gain LRD approval of an Interim DMMP/EA for short-term management plans for the years 2015 to 2018.

At this time, no formally approved decision document exists that would allow for any work related to dredged material management at Cleveland Harbor beyond the current management practices. To implement, even short term measures of a few years (roughly 2015 through 2018) of upland placement at locally provided sites would require detailed formulation and design of alternatives, a decision document, and at a minimum an Environmental Assessment (EA) and Finding of No Significant Impact (FONSI).

Therefore, the Buffalo District has concluded that it would be more prudent to split out an evaluation of measures for short term 2015-2018 dredged material management at Cleveland. This could be accomplished by preparation of an "Interim" DMMP and Environmental Assessment. This interim DMMP/EA could be completed in about one year's time, would not require any unusual level of technical review (e.g. IEPR) and will be approved at the MSC level.

b. Study/Project Description.

Cleveland Harbor, Cuyahoga County, Ohio, is located on the south shore of Lake Erie at the mouth of the Cuyahoga River. The port is 28 miles east of Lorain, Ohio and 33 miles west of Fairport, Ohio (Figure 1). Cleveland Harbor is a major commercial port on Lake Erie. Based on 2008 data of total tonnage handled, Cleveland Harbor is the 7th busiest port on the Great Lakes and 51st busiest port in the nation U.S. Army Corps of Engineers-Institute for Water Resources (USACE-IWR, 2010). The purpose of the project is continued maintenance of an existing deep-draft harbor.

The Draft DMMP/Draft Environmental Impact Statement (DEIS) released for public and agency review in 2009 had tentatively selected the Locally Preferred Plan for a new CDF at a cost of more than \$300 million. The non-Federal sponsor could not certify their financial capability for a local share of approximately \$134 million and they subsequently removed support for the plan. The plan was deemed by the local sponsor not to be implementable for at least two more years and notifications were provided to public and agency reviewers. The application for a 401 water quality permit was withdrawn and a period of intense stakeholder engagement was initiated to address a looming crisis. The implications were clear. Dredging would have to be discontinued after 2014 if there is not a location to place dredged sediment. This looming economic crisis for the region spawned many initiatives aimed at finding implementable, cost-effective solutions to maintain dredging. In response, a dredging Task Force was formed in February 2010 to work collaboratively on solutions. This Task Force is chaired by the Port Authority and members of the Executive Committee are: Congressional Representatives (Representative Marcia Fudge and Senators Sherrod Brown and Rob Portman), Ohio Department of Natural Resources (ODNR), Ohio Environmental Protection Agency (OEPA), USACE, Ohio Department of Transportation (ODOT), Cuyahoga River Remedial Action Plan (RAP), the City of Cleveland and ArcelorMittal. Regular monthly meetings open to the public were held throughout 2010 and 2011 to share progress and develop consensus on solutions. This Feasibility evaluation is being conducted at 100% Federal cost using funds appropriated under O&M for Cleveland Harbor.



Figure1. Location of Cleveland Harbor, OH

Past and current practice for dredged sediment disposal in Cleveland has been to dispose of materials in stone dike enclosures called confined disposal facilities (CDFs) constructed along the Cleveland waterfront. Once filled, the dikes are turned over to the owner for future disposition. Since 1998 an average of approximately 300,000 cubic yards (cy) of sediments have been dredged yearly and transported to CDFs in Cleveland for disposal. If it were not for the implementation of CDF management measures, all existing Cleveland CDFs would have been filled to capacity. From 2008 through 2014, additional capacity was and will continue to be obtained at the existing Cleveland CDFs using fill management plans (FMP) internal to the CDFs (e.g. dewatering, consolidation of dredged material, construction of internal berms). This projection of capacity through 2014 is based on the reduced annual dredging rate of 225,000 cy. By the year 2015, new disposal capacity or method will have to be in place in order to continue dredging Cleveland Harbor.

The Buffalo District has worked very closely with the project's non-Federal Sponsor - the Cleveland Cuyahoga County Port Authority to develop cost-effective, sustainable alternatives to building CDFs. The focus has been on opportunities for beneficial uses. During 2010, various beneficial use alternatives were brought to the attention of the Cleveland Harbor Dredging Task Force (Task Force) and the Buffalo District. These were evaluated to identify feasible and cost-effective short term (through 2017) and long term sediment management options. A report was prepared by the Engineer Research and Development Center (ERDC) providing a review of the logistical and technical feasibility of these beneficial uses, including an analysis of the engineering and ecological suitability, the environmental and regulatory acceptability, site specific logistical considerations, and preliminary estimates of the costs for implementing each of the beneficial use management options deemed feasible.

The existing CDFs are projected to reach capacity by current hydraulic placement methods in 2014. The ERDC Beneficial Use report, completed in August 2011, found that closure and redevelopment of two upland landfills represent good prospects for placement of dredged sediment during the interim period. The report also

determined that mechanical unloading and stockpiling at the existing CDFs is a potentially feasible alternative for optimizing the existing capacities by stacking sediment to higher elevations. Therefore, the IDMMMP is expected, at this early stage, to look at the alternatives for upland beneficial uses versus the modifications necessary at the CDFs to accommodate mechanical placement and capacity optimization.

c. Factors Affecting the Scope and Level of Review.

The draft DMMP/EIS, released in August 2009, went through an Alternative Formulation Briefing (AFB), District Quality Control (DQC), Agency Technical Review (ATR), HQUSACE review, and Policy and Legal Compliance review prior to release.

The previous draft DMMP/EIS generated a lot of comments and several requests for extensions had to be granted. The 179 pages of tabulated comments included many substantive issues that were given serious consideration.

Below is a brief summary of the most significant issues raised:

- The majority of reviewer's comments raised objections to port relocation. A number of comments also claimed that the cumulative impacts of port relocation were not adequately considered. The Taft Law Firm, representing Quay55 waterfront condominium residents, was instrumental in delaying the report's progress by requesting repeated extensions in the review period.
- The report didn't assess the potential adverse impacts to the Quay55 condominium (formerly Nicholson Terminal) which is on the register of historical properties. A claim was made that there is a \$30M impact to the property value and resolving this issue would take time, likely delaying the process significantly;
- Many reviewers stated that locating a CDF at the E. 55thSt. Site is not consistent with the 2004 Waterfront District Plan, even though the City passed a resolution conditionally approving the change to allow a CDF in that location. The public had no chance to weigh in on the issue;
- Claims were made that impacts to the marina and recreational boating were not adequately addressed;
- Several comments referred to the loss of existing fishing platforms and the need to mitigate these impacts;
- Questions were raised about the trends in sediment quality and the underlying basis for having to confine sediments over a 20-year period;
- There were challenges to the appropriateness of the water quality modeling conducted and whether the impacts are really acceptable;
- There was resounding support in many comments for locating a CDF at Sites 2/2A or 3/3A instead of the E. 55th St. site;
- The ODNr has objected to the Federal Consistency determination citing the fact that the non-federal sponsor did not apply for the modifications of existing leases as is necessary to obtain authorization for the activity. The OEPA Water Quality Certification application was subsequently withdrawn after the Port Authority concluded the plan was not implementable for at least two more years;

In the period of time since the document has been on hold, the focus has been on finding cost-effective and sustainable solutions relying on beneficial uses. The keys to this effort have been twofold: characterizing the sediment quality and assessing risks to human health and the environment associated with specific land re-

uses and pathway/receptor scenarios. This effort has been undertaken by the Buffalo District in collaboration with ERDC. There are still misperceptions about contamination levels and threats related to exposures to contamination.

d. In-Kind Contributions.

Products and analyses provided by non-Federal sponsors as in-kind services are subject to District Quality Control and Agency Technical Review. At this stage, there are no in-kind products or analyses expected from the non-Federal sponsor.

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.

DQC is managed in the Buffalo District and may be conducted by in-house staff as long as the reviewers are not doing the work involved in the study, including contracted work that is being reviewed. Basic quality control tools include a Quality Management Plan (QMP) providing for seamless review, quality checks and reviews, supervisory reviews, Project Delivery Team (PDT) reviews, etc. Additionally, the PDT is responsible for a complete reading of the report to assure the overall integrity of the report, technical appendices and the recommendations before the approval by the District Commander. For the Cleveland Harbor IDMMP, non-PDT members and/or supervisory staff will conduct this review for major draft and final products, including products provided by the non-Federal sponsors as in-kind services following review of those products by the PDT. It is expected that the MSC/District QMP address the conduct and documentation of this fundamental level of review. A Quality Control Plan (QCP) is included in the PMP for the subject study and addresses DQC; 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 Review Management Organization (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 Beneficial Use report prepared by the Engineer Research and Development Center (ERDC) has already undergone a District Quality Review (DQR). The IDMMP/EA will undergo an ATR.

b. Required ATR Team Expertise.

The ATR team will be comprised of approximately seven reviewers reflecting the work effort and expertise on the Project Development Team (PDT). The RMO, in cooperation with the PDT, vertical team, and other appropriate centers of expertise, will determine the final make-up of the ATR team. The following table provides examples of the types of disciplines that might be included on the ATR team and some sample descriptions of the expertise required.

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 Navigation O&M, dredged material management plans, as well as beneficial use of dredged sediment.
Economics	The Economist should have an understanding of navigation benefits adequate to recognize sufficiency and appropriate utilization in alternative evaluation. The review requires an understanding of economic related requirements as depicted in EM 1110-2-1619 and ER 1105-2-101. The economist should have an ability to implement and assess risk evaluation methodology.
Environmental Resources	This team member should have extensive knowledge of the integration of environmental evaluation and compliance requirements, pursuant to national environmental statutes (NEPA); a familiarity with applicable executive orders and other Federal planning requirements into the planning of Civil Works comprehensive plans and implementation projects.
Civil Design Engineer	Team member should be an expert in dredged material management projects, including general civil design and construction, as well as confined disposal facilities. They should also be a licensed professional engineer.
Cost Engineering	Team member should be familiar with estimates for civil works (dredged material disposal facilities, etc.) and dredging operations. The Cost Engineer will be required to perform some quantity checks and be familiar with the USACE estimating software MII in reviewing cost estimates.

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 been 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)

An IEPR is 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 decision as described in EC 1165-2-209, is made by the project team as to whether an 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. Team Decision on IEPR.

The Buffalo District has determined that it will not be necessary for this IDMMP to undergo an IEPR based on the following:

- a. The project does not involve a threat to human life.
- b. The project construction cost estimate is expected to be less than the \$45 million cost threshold.
- c. The Governor of the affected state has not requested a peer review, and state agencies are expected to support the project.
- d. The interim project is not controversial and is supported by Federal, State and local agencies.
- e. An Environmental Impact Statement is not required for this IDMMP.
- f. No new or experimental methods are being used for planning or construction of this project.

b. Products to Undergo Type I IEPR.

A Type 1 IEPR will not be required for this Interim DMMP.

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 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 and ATR.

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.

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

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Certification / Approval Status
Great Lakes System Analysis of Navigation Depths (GL-SAND)	The model was developed by the Buffalo District and it calculates transportation cost savings for differential dredging depths.	HQ Certification is pending

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

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Approval Status
CMS-Wave - Wave Model	A spectral wave model based on wave-action balance equation that includes wave diffraction, reflection, breaking, and dissipation. It is a two-dimensional spectral wave model formulated from a parabolic approximation equation (Mase et al. 2005a) with energy dissipation and diffraction terms to simulate a steady-state spectral transformation of directional random waves co-existing with ambient currents in the coastal zone	Classified as CoP Preferred (Preferred Software Option - Recommended)
Sigma/W	This model is a finite element model. It is used to analyze wick drain design and determination of excess pore water pressures during stage construction of embankments.	Geoslope International LTD, Calgary Canada. Approved ACEIT software
Slope/W	This model is a slope stability model which determines the stability of the raised containment dike embankments.	Geoslope International LTD, Calgary Canada. Approved ACEIT software

10. REVIEW SCHEDULES AND COSTS

- a. IPR Schedule and Cost.** An In Progress Review meeting was held in October 2011. The estimated cost of the IPR was \$5,000 (mostly in-house labor).

Description	Scheduled Date
IPR Meeting Complete	October 2011

- b. ATR Schedule and Cost.**

An Issue Resolution Conference was held in June 2006; a second IRC was held in June 2007 with an Alternative Formulation Briefing held in September 2007. When the Alternative (East 55th Street site) was re-introduced into the planning process, a third IRC was held in April 2009. A Draft DMMP was distributed to the public for review in August 2009. The Cleveland Cuyahoga County Port Authority (CCCPA) formally withdrew its support in June 2012. The Interim DMMP for the time period 2015-2018 is now in progress. The estimated cost of the ATR is \$25,000.

Description	Scheduled Date
DRAFT Interim DMMP – begin ATR	July 2012 (t)

c. **Type I IEPR Schedule and Cost.** Not applicable.

d. **Model Certification/Approval Schedule and Cost.** The GL Sand model was reviewed, but is still pending certification. The CMS-Wave Model is currently being added by ERDC to the approved list of coastal models.

11. PUBLIC PARTICIPATION

The Interim DMMP will be distributed for public comment after the MSC approves public release. In accordance with NEPA, an Environmental Analysis (EA) will be made available for a 30-day public comment period. During the public comment period, the Corps will respond by email or letter, depending on how the comment was received. The final document will be placed on the District's web site for information purposes.

12. REVIEW PLAN APPROVAL AND UPDATES

The Great Lakes & 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:

POC	Title	Office Phone Number
Frank O'Connor	Project Manager	716-879-4131
Phil Berkeley	Planner	716-879-4145
Pauline Thorndike	District Support Liaison	513-431-1704
Wesley Walker	Technical Director, PCXIN - Huntington	304-399-6938

ATTACHMENT 1: TEAM ROSTERS

Project Delivery Team – DMMP/EIS				
Name	Role	Office Symbol	Telephone	Email
[REDACTED]	Project Manager	CELRB-PM-PM	[REDACTED]	[REDACTED]
[REDACTED]	Plan Formulator	CELRB-PM-PB	[REDACTED]	[REDACTED]
[REDACTED]	Safety & Occupational Health	CELRB-PM-PM	[REDACTED]	[REDACTED]
[REDACTED]	Outreach Coordinator	CELRB-TD-OT	[REDACTED]	[REDACTED]
[REDACTED]	Project Engineer	CELRB-TD-DS	[REDACTED]	[REDACTED]
[REDACTED]	Geotechnical Engineering	CELRB-TD-DC	[REDACTED]	[REDACTED]
[REDACTED]	Coastal Engineering	CELRB-TD-DC	[REDACTED]	[REDACTED]
[REDACTED]	Planning Management Team	CELRB-TD-EA	[REDACTED]	[REDACTED]
[REDACTED]	Design/Cost Engineer	CELRB-TD-DE	[REDACTED]	[REDACTED]
[REDACTED]	Environmental Health	CELRB-TD-EH	[REDACTED]	[REDACTED]
[REDACTED]	Environmental Analysis/NEPA	CELRB-TD-EA	[REDACTED]	[REDACTED]
[REDACTED]	Planning/Economist	CELRB-PM-PB	[REDACTED]	[REDACTED]
[REDACTED]	Contracting Officer	CELRB-PM-CT	[REDACTED]	[REDACTED]
[REDACTED]	Program Analyst	CELRB-PM-PO	[REDACTED]	[REDACTED]
[REDACTED]	Dredging Program Manager	CELRB-PM-PM	[REDACTED]	[REDACTED]
[REDACTED]	Project Local Configuration Manager	CELRB-PM-PO	[REDACTED]	[REDACTED]
[REDACTED]	Chief, Operations Branch	CELRB-TD-O	[REDACTED]	[REDACTED]
[REDACTED]	Ohio Operations Manager	CELRB-TD-OO	[REDACTED]	[REDACTED]

[REDACTED]	Cleveland Project Office	CELRB-TD-OOC	[REDACTED]	[REDACTED]
[REDACTED]	Real Estate	CELRB-RE-B	[REDACTED]	[REDACTED]
[REDACTED]	District Counsel	CELRB-OC	[REDACTED]	[REDACTED]
[REDACTED]	Public Affairs	CELRB-PA	[REDACTED]	[REDACTED]
[REDACTED]	Construction/Engineering Manager	CCCPA	[REDACTED]	[REDACTED]
[REDACTED]	ERDC Lead Investigator	ERDC	[REDACTED]	[REDACTED]
[REDACTED]	ERDC Team Leader	ERDC	[REDACTED]	[REDACTED]
[REDACTED]	President & CEO	CCCPA	[REDACTED]	[REDACTED]
[REDACTED]	Planning Commission	City of Cleveland	[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
Dan Abecassis
ATR Team Leader
Office Symbol/Company _____ Date _____

SIGNATURE
Frank A. O’Connor, P.E.
Project Manager
CELRB-PM _____ Date _____

SIGNATURE
Name
Architect Engineer Project Manager¹
Company, location _____ Date _____

SIGNATURE
Mark Hammond
Review Management Office Representative
CELRH-NC _____ 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
Jun 2011	General updates were made expecting to prepare a revised 20-year plan	
Jan/Feb 2012	Changes were made to reflect the Interim DMMP documentation (see below) *	

*During an IPR with vertical team members from LRD, it was determined that the Buffalo District will complete an Interim DMMP for the disposal of dredged material in Cleveland Harbor through 2018.

ATTACHMENT 4: ACRONYMS AND ABBREVIATIONS

<u>Term</u>	<u>Definition</u>	<u>Term</u>	<u>Definition</u>
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
CDF	Confined Disposal Facility		
CSDR	Coastal Storm Damage Reduction	O&M	Operation and maintenance
DMMP	Dredged 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/MS	The District or MSC responsible for the preparation of the decision document	RMC	Risk Management Center
HQUSACE	Headquarters, U.S. Army Corps of Engineers	RMO	Review Management Organization
IDMMP	Interim Dredged Material Management Plan	RTS	Regional Technical Specialist
IEPR	Independent External Peer Review	SAR	Safety Assurance Review
IPR	In Progress Review	USACE	U.S. Army Corps of Engineers
IRC	Issue Resolution Conference	WRDA	Water Resources Development Act
LRR	Limited Reevaluation Report		
MSC	Major Subordinate Command		