



**US Army Corps
of Engineers®**

**Buffalo District
Great Lakes and Ohio River Division**

Conneaut Harbor, Ashtabula County, Ohio Continuing Authorities Program Section 1135

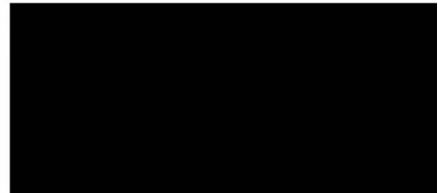
P2/Project Number: 502550

Review Plan – Decision Document

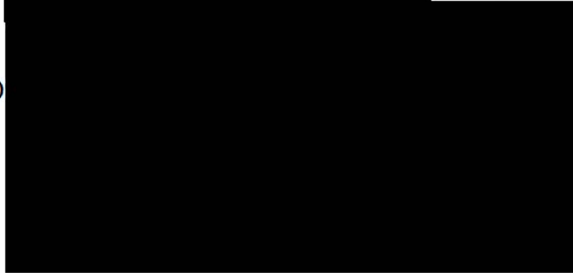
PREPARED
BY:



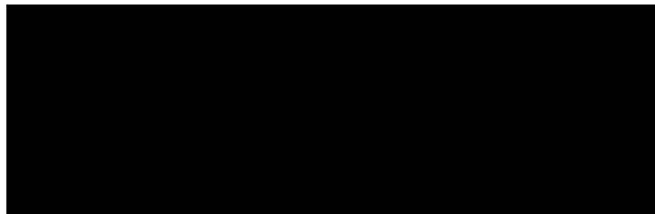
RECOMMENDED
BY:



ENDORSED
BY:



APPROVED
BY:



DOCUMENT HISTORY:

Document	Description & location of Revision	Date Approved
Original RP		DD MMM YYYY
Revision #		

MSC APPROVAL DATE: DD MON YYYY

This information is distributed solely for the purpose of pre-dissemination review under applicable information quality guidelines. It has not been formally disseminated by USACE. It does not represent and should not be construed to represent any agency determination or policy.

1. PURPOSE, AUTHORITY, STUDY DESCRIPTION, AND PRODUCTS.

a. Purpose. This review plan defines levels and scopes of review required for the feasibility phase products. This review plan is a component of the Project Management Plan for the Conneaut Harbor CAP 1135 project.

b. Authority. Section 1135 of the Water Resources Development Act (WRDA) of 1986, as amended by Section 1030 WRDA 2014 (P.L. 113-121)

c. Study Description. The study will investigate the feasibility of ecosystem restoration in impacted areas east of Conneaut Harbor that would help address adverse ecological effects of the federal navigation project. Project measures/features including various sediment dredging and placement methodologies, as well as modifying the existing federal breakwaters, will be developed and screened. Each alternative will be assessed and evaluated for its ability to improve the overall quantity and quality of habitat for native fishes and migratory birds, including the endangered and federally listed piping plover.

Conneaut Harbor is located in Ashtabula County, approximately 1.5 miles from the Ohio/Pennsylvania border, 13 miles northeast of Ashtabula Harbor, and 33 miles southwest of Erie Harbor at Presque Isle State Park in Erie, Pennsylvania (Figure 1). The harbor consists of an outer harbor in Lake Erie sheltered by breakwaters and an inner harbor formed by the lower 3,000 feet of Conneaut Creek. Two converging breakwaters provide 185 acres of protected area within the harbor basin for safe navigation. However, the harbor infrastructure contributes to the inhibition of the natural movement of littoral sediments from west to east along the shore. This has led to sediment accretion on the western side of the harbor, and sediment starvation on the eastern side of the harbor. The shoreline between Conneaut Harbor and Presque Isle State Park has elevated rates of erosion, and a scarcity of sediment in the littoral zone has reduced the quantity and quality of nearshore habitat.

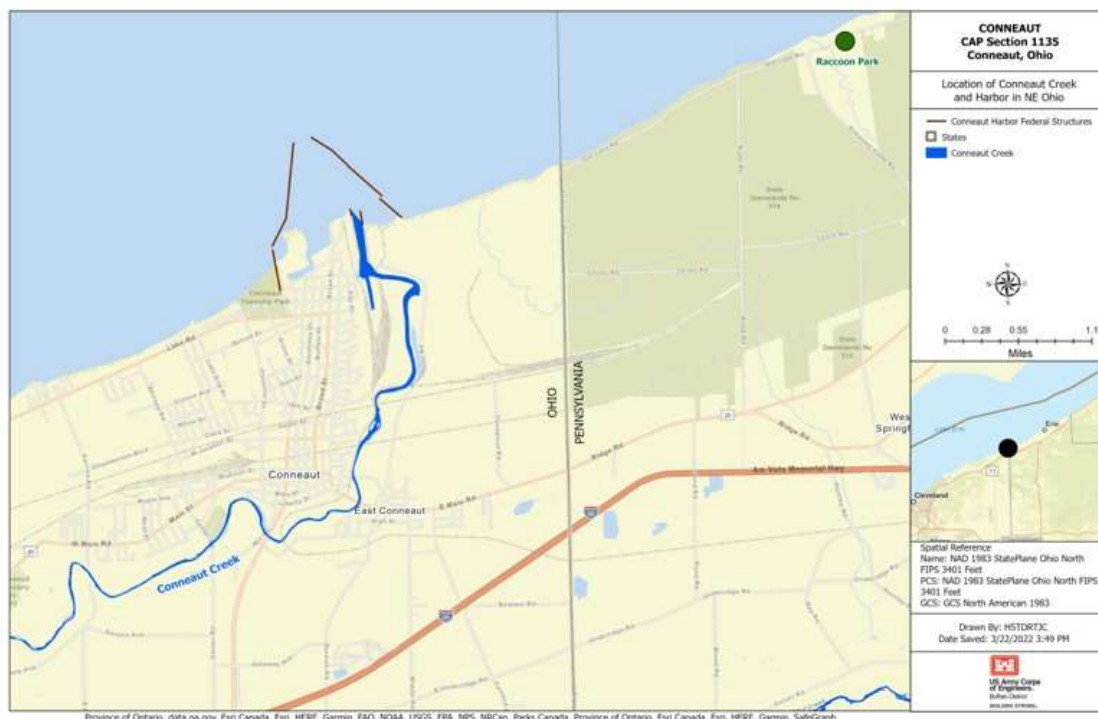


Figure 1: Location of Conneaut Creek and Harbor in NE Ohio

Five preliminary alternatives were developed to address the issue of sediment starvation east of Conneaut Harbor including a “No Action” Alternative as well as four “With-Project” alternatives. The four “With-Project” alternatives included the following:

- Alternative 2a – Mechanical Dredging of 180,000 CY coarse sediment with Mechanical Placement via Split Hull Scow
- Alternative 2b – Mechanical Dredging of 180,000 CY coarse sediment with Mechanical Placement via Clamshell
- Alternative 3 – Mechanical Dredging of 170,000 CY coarse sediment with Mechanical Placement via Trucking
- Alternative 4 – Mechanical Dredging of 80,000 CY coarse sediment with Hydraulic Offloading

A preliminary evaluation of ecosystem benefits was conducted, which confirmed that the proposed “With-Project” alternatives would improve the quality and quantity of habitat compared to the “No-Action” alternative. Additional alternatives will be developed and evaluated during the completion of the feasibility study. Overall, the size, cost, scope, and complexity of the project can be successfully addressed through the CAP Section 1135 authority.

d. Sponsor. The non-federal sponsor is the Commonwealth of Pennsylvania Department of Environmental Protection (PADEP) and they have expressed their intent to partner with the USACE to complete a feasibility study with a letter of intent dated 14 December 2021.

e. Project Risks.

Risk Event	Risk Description
Sponsor cost share viability	Risk is high. Sponsor is unwilling or unable to cost share complete desired product.
Benefits calculations complexity	Risk is high. Project aims to address a systems wide problem, where the benefits are impacting a larger extent. This will be difficult to quantify and determine exact location where benefits are realized.
Public acceptance	Risk is medium. Risk of TSP being unacceptable to public and potentially state agencies.
Real estate risk (LERRDs)	Risk is medium. The NFS for the feasibility study is PADEP. They intend to share the cost with ODNR. This is non-traditional and requires confidence on the part of USACE that ODNR is willing and able to secure LERRDs for the project.
Project is GLRI funded, need support from EPA and state agencies.	Risk is medium. Support of external stakeholders (sponsors are in PA, project is in OH).

On-going communication and coordination with PADEP is intended to continue in order to mitigate these risks.

e. Products.

Table 1. List of Products to Be Prepared and Reviewed					
Product / Document	Prepared By	Type of Review to be Performed			
		DQC	ATR	Type I IEPR	Policy / Legal
Detailed Project Report (DPR) and Environmental Assessment (Main Report / Integrated DPR/EA)	In-house Resources	X	X		X
Environmental Appendix	In-house Resources	X	X		X
Real Estate Plan	In-house Resources	X	X		X
Coastal Engineering Appendix	In-house Resources	X	X		X
Civil Structural Engineering Appendix	In-house Resources	X			X
Geotechnical Engineering Appendix	In-house Resources	X			X
Cost Appendix	In-house Resources	X	X		X
HTRW Assessment (Phase 1 ESA)	In-house Resources	X			X
Environmental Coordination Appendix Including: • Summary of Comments & Responses from Public and Agency Review • FONSI • Cultural Resources Report	In-house Resources	X	X		X

2. REVIEW REQUIREMENTS.

Types of Review. The feasibility phase activities and documents are required to be reviewed in accordance with ER 1165-2-217.

(1) District Quality Control (DQC): DQC procedures will be performed and formally documented for all study products, including supporting documents.

- The District will perform and manage DQC procedures in accordance with the District DQC process.
- DQC will be documented with a summary certification and comments/responses.
- Supervisors within each area of responsibility will assign appropriate, qualified staff to perform QC on their respective products. Personnel performing QC shall have the necessary expertise to address compliance with Corps policy.
- The DQC team for this study is listed on the last page of the review plan.

Table 2a. DQC Team Technical Disciplines and Expertise		
Technical Discipline	Peer DQC Reviewer	Chief Level DQC Reviewer
Plan Formulation	Each peer-level DQC reviewer will have no production role in the study/project and will have the necessary expertise/experience to thoroughly review the study products identified in Table (1).	CELRB-PML-P Chief
Climate Preparedness and Resiliency		CELRB-PML-P Chief
Economist		CELRB- PML-P Chief
Cost Estimator		CELRB-TDD-T Chief
Real Estate Specialist		CELRE Real Estate Chief
Biologist/Cultural Resources		CELRB-PML-E Chief
Coastal Engineer		CELRB-TDD-C Chief
Geotechnical Engineer		CELRB-TDD-C Chief
Civil/Structural Engineer		CELRB-TDD-S Chief
Environmental Engineer		CELRB-TDE-E Chief

(2) Agency Technical Review (ATR): ATR will be scaled to a level commensurate with the risk and complexity of the products to be reviewed. 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 mandatory for all decision documents (including supporting data, analyses, environmental compliance documents, etc.)

- 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.
- ATR reviewers in the Plan Formulation, Environmental, Economic, and Cultural Resources disciplines must be certified by their respective Planning sub-CoP.
- ATR reviewers in the Engineering & Construction discipline must be certified by the Corps of Engineers Reviewer Certification and Access Program (CERCAP).
- The team lead will be from outside LRD.
- The ATR review will be documented using DrChecks, and an ATR Summary Report and certification will be completed.
- The ATR team may be expanded to include civil/structural and geotechnical engineering disciplines, should a breakwater modification or other technically similar alternative be carried forward to the focused array of alternatives. The project delivery team will check in with the ATR lead to confirm the final ATR review team disciplines at the time of the Focused Array of Alternatives Milestone (FAAM).

Table 2b. ATR Technical Disciplines and Expertise Required		
ATR Disciplines	Expertise Required	Justification / Rationale
ATR Lead- Plan Formulation/ Ecosystem Restoration	The ATR lead should be a senior professional preferably with experience in preparing CAP decision documents and conducting ATR. This reviewer will be responsible for reviewing all plan formulation components of the feasibility study, including the benefits analysis will focus on ecological outputs associated with the identified project alternatives and use CE/ICA to help identify the TSP. 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.	Coordinate all ATR activities. ATR lead suggested by New England district based on past experience.
Environmental (NEPA) Archeological & Cultural	The Environmental reviewer should be familiar with NEPA related to ecosystem restoration projects.	Team member will be experienced in the NEPA process and analysis and have a biological or environmental background that is familiar with the project area and ecosystem restoration. Team member should be proficient with models (IWR) used for assessing ecological outputs. It may be possible to have the same individual perform both overall (i.e., lead plan formulation) and environmental review components of this project.
Coastal Engineering Reviewer	The reviewer should have experience in Great Lakes coastal processes including sediment transport. Must be Certification and Access Program (CERCAP) certified.	Team member will be experienced in operations and maintenance of federal harbors on the Great Lakes.
Cost Engineering Reviewer	Cost MCX Staff or Cost MCX Pre-Certified Professional as assigned by the Walla Walla Cost Engineering Mandatory Center of Expertise with experience preparing cost estimates for GLFER cost estimates. Must be Certification and Access Program (CERCAP) certified.	Required by ER 1165-2-217.

Real Estate	Real Estate expert with experience preparing Real Estate Plans in Section 1135 or similar studies that require a submerged lands lease from the State of Ohio.	Real Estate review is required to achieve vertical alignment and eventual division/HQ approval for a non-standard estate with the State of Ohio.
Disciplines not anticipated to be needed on ATR team		
Economics	Expertise not anticipated to be required on ATR Team	No Economics review required, because this is an ER project whose benefits will be focused on the ecological outputs associated with the identified project alternatives rather than monetary BCRs.
HTRW	HTRW not anticipated to be needed on ATR team.	Risks of HTRW impact to project are low. HTRW not anticipated.
Civil/ Structural Engineering Reviewer	Expertise not anticipated to be needed on ATR team.	There are no significant civil/structural engineering risks on this project; there is enough in-house expertise in this discipline to satisfy review requirements through DQC.
Geotechnical Engineering Reviewer	Expertise not anticipated to be needed on ATR team.	There are no significant geotechnical engineering risks on this project; there is enough in-house expertise in this discipline to satisfy review requirements through DQC.
Climate Preparedness and Resiliency	Expertise not anticipated to be needed on ATR team.	There is no <i>significant</i> climate change and resiliency discussion expected in the report due to project scope and nature of alternatives. Any CPR can be adequately discussed and evaluated through District Quality Control review.

(3) Type I Independent External Peer Review (IEPR): A Type I IEPR is not required based on the mandatory triggers outlined in ER 1165-2-217. Paragraph 6.4 states a project study may be excluded from Type I IEPR if the project does not meet any of the three mandatory IEPR triggers.

All CAP projects are excluded from Type I IEPR except those conducted under Section 205 and Section 103, or those projects that include and Environmental Impact Statement (EIS) or meet the mandatory triggers for Type I IEPR. An EIS will not be completed for this project.

This feasibility study does not meet any of the three mandatory IEPR triggers for the following reasons:

- The estimated total cost of the project, including mitigation costs, is not greater than \$200 million.
- The Governors of Ohio or Pennsylvania have not requested a peer review by independent experts.
- The study is not controversial due to significant public dispute over size, nature, or effects of the project or the economic or environmental costs or benefits of the project.

When none of the three mandatory triggers for IEPR are met, MSC Commanders have the discretion to conduct IEPR on a risk-informed assessment of the expected contribution of IEPR to the project. An IEPR would not provide additional benefit to the study for the following reasons:

- a. This study does not include the development or use of any novel methods.
- b. This project does not pose likely threats to health and public safety.
- c. There is no anticipated inter-agency interest.
- d. Buffalo District has not received a request from the head of any Federal or State agency for an IEPR.
- e. The proposed project is not anticipated to have unique construction sequencing or a reduced or overlapping design construction schedule.

(4) Safety Assurance Review (SAR): Safety Assurance Reviews 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. In accordance with ER 1165-2-217, Section 7.3, SAR is conducted on PED and construction activities for projects where potential hazards pose a significant threat to human life (public safety). Since this review plan pertains to the feasibility phase of this project, an SAR is not applicable.

(5) Policy and Legal Review: All decision documents will be reviewed for compliance with law and policy. Guidance for policy and legal compliance reviews is addressed in ER 1165- 2-217. In reviewing ER 1165-2-217, it defines what needs to be reviewed by the District and Division for policy and legal compliance and what documents need to be prepared to document that.

(6) Public Participation.

- a. A public involvement program will be included to satisfy NEPA requirements and solicit public and government agency input.
- b. The District shall contact agencies with regulatory review for coordination as required by applicable laws and procedures.
- c. The District will review comments resulting from public and agency review and will provide the ATR team copies of public and agency comments and responses.

3. MODEL CERTIFICATION OR APPROVAL.

The following models may be used to develop the decision documents:

Table 3a. Planning Models		
Model Name and Version	Model Description and How It Will Be Used	Certification / Approval Status & Date
IWR Planning Suite Version 2.0.9	Cost Effectiveness, Incremental Cost Analysis. The Institute for Water Resources Planning Suite (IWR-PLAN) is a decision support software package that is designed to assist with the formulation and comparison of alternative plans. While IWR-PLAN was initially developed to assist with environmental restoration and watershed planning studies, the program can be useful in planning studies addressing a wide variety of problems. IWR-PLAN can assist with plan formulation by combining solutions to planning problems and calculating the additive effects of each combination, or "plan." IWR-PLAN can assist with plan comparison by conducting cost effectiveness and incremental cost analyses, identifying the plans which are the best financial investments and displaying the effects of each on a range of decision variables. The ecological habitat units calculated using the Habitat Evaluation Process will be used as inputs in IWR-PLAN to evaluate the benefits associated with each project alternative.	Certified
Lake Qualitative Habitat Evaluation Index (L-QHEI) 2015	The Lake Erie Qualitative Habitat Evaluation Index (L-QHEI) developed by the Ohio Environmental Protection Agency is designed to provide a measure of Lake Erie shoreline habitat quality that generally corresponds to those physical and biological factors that affect fish communities, and which are generally important to other aquatic life (e.g. invertebrates). The LQHEI consists of five metrics based on shoreline habitat quality: (1) substrate type/quality; (2) cover type; (3) shoreline morphology; (4) riparian zone and bank erosion; and (5) aquatic vegetation quality. Scores could theoretically range between zero and 100 (low scores represented low habitat quality/high human disturbance and high scores indicated high habitat quality/little human disturbance). This index will be Certified for Regional Use in the Great Lakes one of the metrics used to characterize existing conditions and evaluate ecosystem restoration plans.	L-QHEI has been approved for regional use in Ohio as per the Ecosystem Restoration Planning Center Expertise Model Library
HSI	A habitat suitability index model for the walleye which provides habitat information useful for impact assessment and habitat management.	Approved for use in 1984, via the FWS

Table 3b. Engineering Models		
Model Name and Version	Model Description and How It Will Be Used	Approval Status
MCACES	Microcomputer-Aided Cost Estimation System; Used to generate detailed cost estimates for each alternative.	Approved

4. REVIEW SCHEDULE AND BUDGET.

The schedule and budgets for reviews are shown in below table.

Table 4. Product and Review Schedule				
Product(s) to undergo Review	Review Level	Start Date	Finish Date	Budget (\$)
Draft Detailed Project Report and Integrated Environmental Assessment (DPR/EA) & Appendices	District Quality Control	APR 2024	APR 2024	
Draft DPR/EA & Appendices	Agency Technical Review	MAY 2024	JUN 2024	
Draft DPR/EA & Appendices	LRD Policy and Legal Review	MAY 2024	JUN 2024	
Draft DPR/EA & Appendices	Public and Agency Review	MAY 2024	JUN 2024	
Final DPR/EA & Appendices	Final District Quality Control	JUL 2024	SEP 2024	
Final DPR/EA & Appendices	Final Agency Technical Review	JUL 2024	AUG 2024	
Final DPR/EA & Appendices	Final LRB Policy and Legal Review	AUG 2024	AUG 2024	
Final DPR/EA & Appendices	Final LRD Policy and Legal Review	SEP 2024	OCT 2024	

ATTACHMENT 1 – Contacts

Function	Name (Last, First)	Phone	Office
RMO Contact			CELRD-PDS-P
MSC Contact – District Support Program Manager			CELRD-PDS

PROJECT DELIVERY TEAM			
Function/Discipline	Name (Last, First)	Phone	Office
Sponsor			PADEP
Project Manager (Lead)			CELRB-PMP-M
Planner			CELRB-PML-P
Biologist			CELRB-PML-E
Civil/Structural Engineer			
Project Management Specialist			CELRB-PMP-O
Coastal Engineering			CELRB-TDD-C
Geotechnical Engineering			
Real Estate			
Legal Counsel			CELRB-OC
Cost Engineering			CELRB-TDD-T
Program Analyst			CELRB-PMP-O

DISTRICT QUALITY CONTROL (DQC) TEAM			
Function/Discipline	Name (Last, First)	Phone	Office
DQC Lead, P3M Program Advocate			CELRB-PML
Design Branch Chief, TSD Program Advocate			CELRB-TDD
Plan Formulation/Climate Preparedness and Resiliency			CELRB-PML-P
Env. Analysis & Cult. Resources			CELRB-PML-E
Civil/Structural			CELRB-TDD-S
Geotechnical/Coastal Engineer			CELRB-TDD-C
Project Management			CELRB-PMP-O
Cost Engineering			CELRB-TDD-T
Real Estate			CELRB-RE

AGENCY TECHNICAL REVIEW (ATR) TEAM			
Function/Discipline	Name (Last, First)	Phone	Office
ATR Lead/Plan Formulation			CENAE-PDP
Environmental/ (NEPA) & Archeological/Cultural Resources			
Coastal Engineering			
Cost Engineering			CENWW-ECE
Real Estate			

MSC Policy and Legal Compliance Review Team			
Function/Discipline	Name (Last, First)	Phone	Office
Review Manager			CELRD-PDS
Planning Reviewer			CELRD-PDP
Environmental Reviewer			CELRD-PDP
RIDM Reviewer			CELRD-PDP
Economics Reviewer			CELRD-PDP
Technical Design Reviewer			CELRD-RBT
Hydrology and Hydraulic Engineering/Climate Reviewer			CELRD-RB-W
Office of Counsel			CECC-LRD
Cost Engineering Reviewer			CELRD-RBT
Real Estate Reviewer			CELRD-PDR