



**US Army Corps
of Engineers**

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

Fairport Harbor Regional Sediment Management, Lake Erie Coastal
Wetlands, Continuing Authorities Program Section 204, Fairport Harbor,
Lake County, Ohio

Feasibility Study

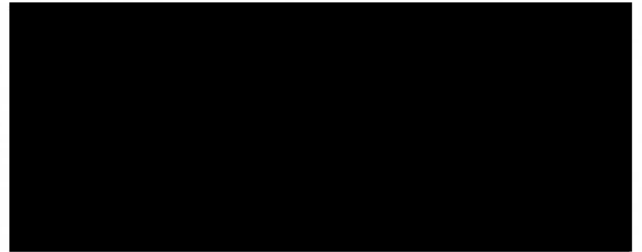
P2/Project Number: 467448

Decision Document Review Plan

PREPARED
BY:



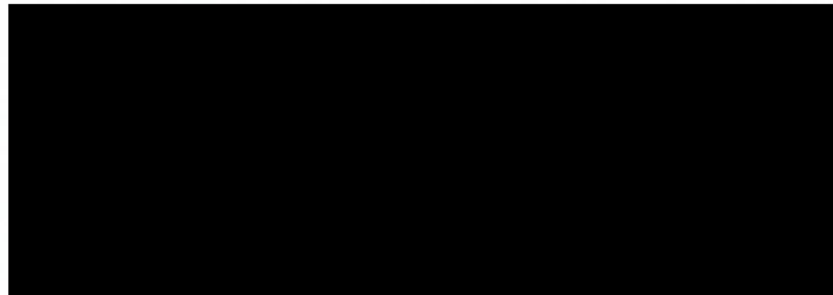
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DECISION DOCUMENT REVIEW PLAN

June 8 2020

Project Name: Fairport Harbor Regional Sediment Management, Lake Erie Coastal Wetlands, Continuing Authorities Program Section 204, Fairport Harbor, Lake County, Ohio

P2 Number: 467448

Decision Document Type: Feasibility Report

Project Type: Beneficial Use for Ecosystem Restoration

District: Buffalo District

District Contact: [REDACTED]

Major Subordinate Command (MSC): LRD

MSC Contact: [REDACTED]

Review Management Organization (RMO): LRD

RMO Contact: [REDACTED]

Key Review Plan Dates

Date of RMO Endorsement of Review Plan: *PENDING*

Date of MSC Approval of Review Plan: *PENDING*

Date of IEPR Exclusion Approval: N/A

Has the Review Plan changed since PCX Endorsement? No

Date of Last Review Plan Revision: 20 September 2019

Date of Review Plan Web Posting: N/A

Date of Congressional Notifications: N/A

Milestone Schedule

	<u>Scheduled</u>	<u>Actual</u>	<u>Complete</u>
<u>Alternatives Milestone:</u>	(28 Feb 2020)	(28 Feb 2020)	Yes
<u>Tentatively Selected Plan:</u>	(20 Oct 2020)		No
<u>Release Draft Report to Public:</u>	(16 Mar 2021)		No
<u>Agency Decision Milestone:</u>	(16 May 2021)		No
<u>Final Report Transmittal:</u>	(30 Jun 2021)		No
<u>Senior Leaders Briefing:</u>	(30 Jun 2021)		No

Project Fact Sheet
June 8 2020

Project Name: Fairport Harbor Regional Sediment Management, Lake Erie Coastal Wetlands, Continuing Authorities Program Section 204, Fairport Harbor, Lake County, Ohio

Location: Fairport Harbor, Lake County, Ohio

Authority: CAP, Section 204 of the Water Resources Development Action of 1992, as amended

Sponsor: Lake County and Ohio Port and Economic Authority

Type of Study: Feasibility Study

SMART Planning Status: This planning study is 3x3x3 compliant

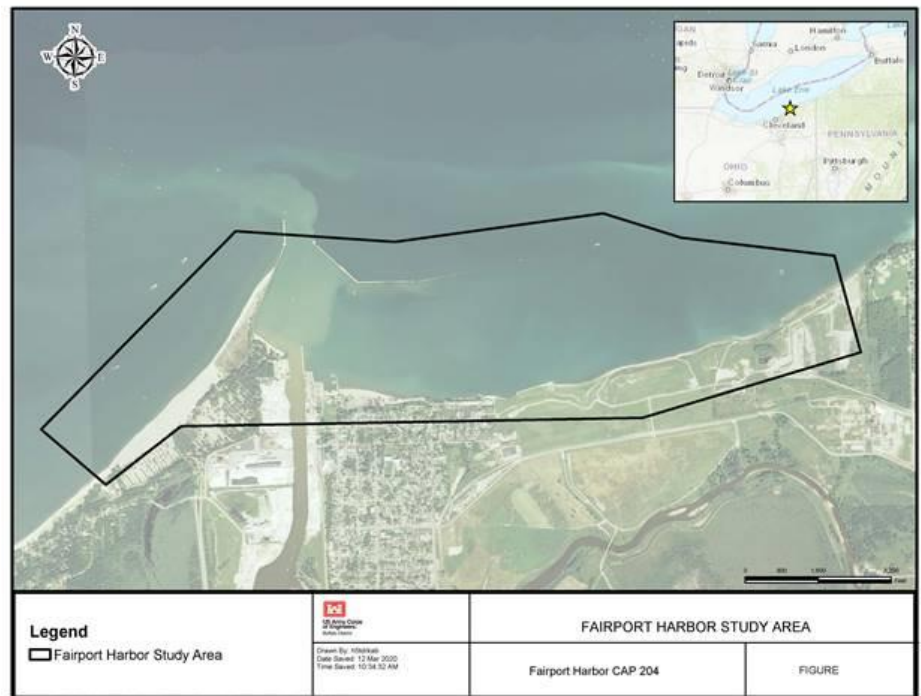
Project Area: Fairport Harbor federal navigation channel including east breakwater and shoreline in the vicinity.

Problem Statement: Near shore and coastal wetland habitat on Lake Erie have been significantly impacted by shoreline development with only 5% of the historic extent remaining due to agriculture and urban development. Maintenance dredging of Fairport Harbor produces 150,000 cy every other year that required transportation and placement by economically feasible and environmentally acceptable manner.

Federal Interest: There is a federal interest in investigating opportunities for beneficial use of dredged sediments from Fairport Harbor through a feasibility study.

Risk Identification: There are no risks to human life or the environment. The primary risks associated with this project relate to project schedule, development of effective alternatives for ecosystem restoration, within federal cost limits.

Figure 1: Fairport Harbor Study Area



1. FACTORS AFFECTING THE LEVELS OF REVIEW

Scope of Review.

This study will determine feasibility for ecosystem restoration using sediment dredged from the federal navigation channel in Fairport Harbor, Ohio. Alternatives for the establishment of near shore and/or coastal marshland aquatic habitat will be studied for the purpose of improving Lake Erie coastal fish and wildlife habitat. Near shore and coastal wetland habitat types considered in alternatives during this feasibility study are rare on Lake Erie, with only 5% of the historic extent remaining due to agriculture and urban development.

These alternatives seek to beneficially use at least one cycle of dredged sediment (an average of 150,000 cubic yards) in habitat creation. Fairport Harbor is a deep draft commercial/recreational harbor maintained by the USACE, Buffalo District. Fairport Harbor generally requires maintenance dredging every two years to facilitate commercial navigation. The most recent harbor maintenance dredging occurred in 2017, and maintenance dredging is scheduled to occur during 2019. In addition, effective July 2020, the State of Ohio has effectively banned open lake placement, the current federal standard for Fairport Harbor. Buffalo District (LRB) leadership, including the District Commander, have met with Ohio officials monthly for the past two years to identify Beneficial Use projects, including this CAP 204 project. The State of Ohio endorses this project and may provide non-federal funds for the Design and Implementation phase.

This review plan proposes accelerating the project schedule for the feasibility phase. Accelerated schedule will rely on resource prioritization, timely execution of all project milestones, as well as targeted acceleration of specific project activities and durations. A specific opportunity lies in shortening the duration of alternative plan formation through resource prioritization and dedication. By focusing alternative development and prioritizing resources during this phase, an accelerated schedule may be realized.

- Will the study likely be challenging? The most significant project challenges relate to the need develop cost effective methods of constructing structural retainment features that can protect fine dredge material and support the establishment of coastal wetland types.
- Provide a preliminary assessment of where the project risks are likely to occur and assess the in the products listed in Table magnitude of those risks. There are no risks to human life or the environment. The primary risks associated with this project relate to project schedule and development of effective alternatives for ecosystem restoration within federal cost limits. Accelerating feasibility phase schedule may result in increases to quality risks, but subsequently create opportunity in the form of shortened feasibility phase duration and decrease in overall feasibility phase cost. The attached risk register details the risks associated with an accelerated schedule along with risk responses and planned contingency.

- Is the project likely to be justified by life safety or is the study or project likely to involve significant life safety issues? **NO. The Chief of Engineering has reviewed this proposed project and made the determination that life safety is not an issue.**
- Has the Governor of an affected state requested a peer review by independent experts? **NO**
- Will it likely involve significant public dispute as to the project's size, nature, or effects? **NO**
- Is the project/study likely to involve significant public dispute as to the economic or environmental cost or benefit of the project? **NO**
- Is the information in the decision document or anticipated project design likely to be based on novel methods, involve innovative materials or techniques, present complex challenges for interpretation, contain precedent-setting methods or models, or present conclusions that are likely to change prevailing practices? **NO**
- Does the project design require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design/construction schedule? **NO**
- Is the estimated total cost of the project greater than \$200 million? **NO**
- Will an Environmental Impact Statement be prepared as part of the study? **NO**
- Is the project expected to have more than negligible adverse impacts on scarce or unique tribal, cultural, or historic resources? **NO**
- Is the project expected to have substantial adverse impacts on fish and wildlife species and their habitat prior to the implementation of mitigation measures? **NO**
- Is the project expected to have, before mitigation measures, more than a negligible adverse impact on an endangered or threatened species or their designated critical habitat? **NO**

2. REVIEW EXECUTION PLAN

This section describes each level of review to be conducted. Based upon the factors discussed in Section 1, this study will undergo the following types of reviews:

District Quality Control. DQC procedures will be performed for all study products. 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. This includes senior levels of expertise as well as a DQC process that occurs both at set schedule stages and continually throughout the feasibility phase. Documentation of DQC activities is required and should be in accordance with the District and LRD QMS procedures.

Agency Technical Review. ATR will be scaled appropriately commensurate with risk and complexity of the products to be reviewed. Project disciplines not represented in the ATR have a level of risk deemed acceptable for control during DQC. Disciplines included in the ATR focus on project components with the most direct correlation to project success and by correlation have the highest levels of overall risk associated with them. The ATR team for this project consists of personnel from outside of the Buffalo District that is not involved in the day-to-day production of the project/product. These teams will be comprised of certified USACE personnel. The ATR team lead will be from outside the home MSC.

Independent External Peer Review. Under the CAP 204 authority, Type I IEPR is not required based on the mandatory triggers as specified in EC 1165-2-217 (paragraph 11; pp 34-44)

Cost Engineering Review. All decision documents shall be coordinated with the Cost Engineering Mandatory of Center of Expertise (MCX). The MCX will assist in determining the expertise needed on the ATR teams. The MCX will provide the Cost Engineering certification. The RMO is responsible for coordinating with the MCX for the reviews. These reviews typically occur as part of ATR.

Model Review and Approval/Certification. EP 1105-2-58 specifies that approval of planning models is NOT required for CAP projects, but planners should utilize certified models if they are available. The ATR certification package will include an explicit statement that says that the models and analysis are used appropriately and in a manner that is compliant with Corps policy, and they are theoretically sound, computationally accurate, and transparent. The ATR certification package will address any limitations of the model or its use documented in study reports.

Policy and Legal Review. All decision documents will be reviewed for compliance with law and policy. ER 1105-2-100, Appendix H provides guidance on policy and legal compliance reviews. These reviews culminate in determinations that report recommendations 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. These reviews are not further detailed in this section of the Review Plan.

Review Schedule and Budget.

Table 1 provides the schedules and costs for reviews. The specific expertise required for the teams are identified in later subsections covering each review. These subsections also identify requirements, special reporting provisions, and sources of more information.

Table 1. Levels of Review

Product and Review Schedule					
Product(s) to undergo Review	Review Level	Start Date	Finish Date	Budget (\$)	Complete

<u>Draft Integrated Detailed Project Report (DPR) and EA</u>	<u>District Quality Control</u>	28 Sep 2020	12 Oct 2020	\$12,000	
<u>Draft Integrated DPR and EA</u>	<u>Agency Technical Review</u>	13 Oct 2020	07 Dec 2020	\$11,000	
<u>Draft Integrated DPR and EA</u>	<u>Policy and Legal Review</u>	13 Oct 2020	10 Dec 2020	\$2,500	
<u>Draft Final Integrated DPR and EA</u>	<u>District Quality Control</u>	03 Feb 2021	11 Mar 2021	\$4,000	
<u>Draft Final Integrated DPR and EA</u>	<u>Agency Technical Review</u>	12 Mar 2021	13 Apr 2021	\$3,000	
<u>Draft Final Integrated DPR and EA</u>	<u>Policy and Legal Review</u>	13 Mar 2021	19 Apr 2021	\$2,500	

a. DISTRICT QUALITY CONTROL

The home district shall manage DQC and will appoint a DQC Lead to manage the local review (see EC 1165-2-217, section 8.a.1). DQC will adhere to applicable review guidance as outlined in EC 1165-2-217, 06530 LRD Civil Works Document Review Process, and any local processes specific to LRB. Table 2 identifies the required expertise for the DQC team.

Table 2: Required DQC Expertise

Table 2. Required DQC Expertise

DQC Team Technical Disciplines and Expertise	
Technical Discipline	Expertise Required
DQC Lead	A qualified senior staff member (Supervisor, Regional Technical Specialist, Lead Planner, Engineering Technical Lead, or PM) who has no production role in the study/project, with extensive experience preparing Civil Works decision documents for Section 204 projects and conducting DQC. The lead may also serve as a reviewer for a specific discipline (such as planning, economics, environmental resources, etc).
Plan Formulator	A senior water resources planner with experience in Section 204 Projects and expertise in Ecosystem Restoration projects.
Ecosystem Restoration	An Ecologist or Biologist with experience in section 204 Projects and expertise in Ecosystem Restoration
Environmental and Cultural Resources	An Ecologist or Biologist with experience in Section 204 Projects and expertise in NEPA, SHPO, 404b1, and other pertinent environmental reviews and policies.
Coastal / Geotechnical Engineering	A Coastal and Geotechnical Engineer with experience in Section 204 Projects and expertise in Ecosystem Restoration projects. Expertise in wave energy.
Civil Engineering Design	A Cost Engineer with experience in dredging and ecosystem restoration.
Cost Engineering	A Cost Engineer with experience in dredging and ecosystem restoration.
Operations	A professional experienced with the current dredging operations of the Grand River – Fairport Harbor.
Real Estate	A Real Estate expert with experience preparing Real Estate Plans in Section 204 projects or similar studies.

Documentation of DQC. Quality Control should be performed continuously throughout the study. A specific certification of DQC completion is required at the draft and final report stages. Documentation of DQC should follow the District Quality Manual and the MSC Quality Management Plan. An example DQC Certification statement is provided in EC 1165-2-217, on page 19 (see Figure F).

Documentation of completed DQC should be provided to the MSC, RMO and ATR Team leader prior to initiating an ATR. The ATR team will examine DQC records and comment in the ATR

report on the adequacy of the DQC effort. Missing or inadequate DQC documentation can result in delays to the start of other reviews (see EC 1165-2-217, section 9).

b. AGENCY TECHNICAL REVIEW

The ATR will assess whether the analyses are technically correct and comply with guidance, and that documents explain the analyses and results in a clear manner. An RMO manages ATR. The review is conducted by an ATR Team whose members are certified to perform reviews. Lists of certified reviewers are maintained by the various technical Communities of Practice (see EC 1165-2-217, section 9(h)(1)). Table 3 identifies the disciplines and required expertise for this ATR Team.

Table 3. Required ATR Team Expertise

ATR Team Technical Disciplines and Expertise	
Technical Discipline	Expertise Required
ATR Lead – Ecosystem Restoration / Plan Formulation	The ATR lead should be a senior professional preferably with experience in preparing Section 204 decision documents and conducting ATR. The lead should also have the necessary skills and experience to lead a virtual team through the ATR process. Typically, the ATR lead will also serve as a reviewer for a specific discipline (such as planning, economics, environmental resources, etc).
Environmental Compliance/Ecosystem Restoration/Plan Formulation	Based on discipline represented by ATR Team Lead, an additional ATR team member will be required to represent Environmental Compliance/ Plan Formulation/ Ecosystem Restoration. ATR Team member should have expertise in one or more of these fields in Section 204 CAP studies or similar ecosystems restoration projects.
Coastal Design	The Coastal design reviewer should have experience in ecosystem restoration or Section 204 beneficial use of dredge material civil works projects. Must be Certified and Access Program (CERCAP) certified.
Cost Engineering	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 Section 14 cost estimates. Must be Certification and Access Program (CERCAP) certified.
Climate Preparedness and Resilience	A certified Climate Preparedness and Resilience review that can evaluate the potential effects of climate change on project alternatives

Documentation of ATR. DrChecks will be used to document all ATR comments, responses and resolutions. Comments should be limited to those needed to ensure product adequacy. If a concern cannot be resolved by the ATR team and PDT, it will be elevated to the vertical team for resolution using the EC 1165-2-217 issue resolution process. Concerns can be closed in DrChecks by noting the concern has been elevated for resolution. The ATR Lead will prepare a Statement of Technical Review (see EC 1165-2-217, Section 9), for the draft and final reports, certifying that review issues have been

resolved or elevated. ATR may be certified when all concerns are resolved or referred to the vertical team and the ATR documentation is complete.

Recommended Best Planning Practice: All members of the ATR team should use the four part comment structure (see EC 1165-2-217, Section 9(k)(1)).

c. INDEPENDENT EXTERNAL PEER REVIEW

(i) Type I IEPR.

Decision on Type I IEPR. Under the CAP 204 authority, Type I IEPR is not required based on the mandatory triggers as specified in EC 1165-2-217 (paragraph 11; pp 34-44)

(i) Type II IEPR.

The second kind of IEPR is Type II IEPR. These Safety Assurance Reviews are managed outside of the USACE and are conducted on design and construction for hurricane, storm and flood risk management projects or other projects where existing and potential hazards pose a significant threat to human life. A Type II IEPR Panel will be convened to review the design and construction activities before construction begins, and until construction activities are completed, and periodically thereafter on a regular schedule.

Decision on Type II IEPR. The project does not contain any risk for life-safety, therefore a Type II IEPR is not required and will not be conducted.

d. MODEL CERTIFICATION OR APPROVAL

EP 1105-2-58 specifies that approval of planning models is NOT required for CAP projects, but planners should utilize certified models if they are available. The ATR certification package will include an explicit statement that says that the models and analysis are used appropriately and in a manner that is compliant with Corps policy, and they are theoretically sound, computationally accurate, and transparent. The ATR certification package will address any limitations of the model or its use documented in study reports.

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

Table 4. Planning Models

Planning Models		
Model Name and Version	Model Description and How It Will Be Used	Certification / Approval
IWR Planning Suite Version 2.0.9	Brief Description of the Model and How It Will Be Applied in the Study 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 Erie Qualitative Habitat Evaluation Index (L-QHEI) Version 2.1	The Lake Qualitative Habitat Evaluation Index (QHEI) is designed to provide a measure of habitat quality that generally corresponds to those physical factors that affect fish communities and which are generally important to other aquatic life (e.g. invertebrates). A QHEI measurement can have a maximum score of 100 with scores less than 30 identifying a very poor quality stream and scores of 70 or higher characterizing excellent quality streams. The standard QHEI was adjusted for use in evaluating lake shore environment. https://epa.ohio.gov/portals/35/documents/QHEIManual_LakeErieShoreline_June2010.pdf	LRD guidance Approval
Floristic Quality Assessment Index (FQAI) - Ohio	The Floristic Quality Assessment Index is a tool for scoring the ecological value of a given wetland based on the composition of its plant community. https://www.epa.ohio.gov/portals/35/wetlands/Ohio_FQAI.pdf	Approved

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. The professional practice of documenting the application of the software and modeling results will be

followed. The USACE Scientific and Engineering Technology Initiative has identified many engineering models as preferred or acceptable for use in studies. These models should be used when 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.

Table 5. Engineering Models.

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
CMS Wave/Flow Coastal Model	Coastal Modeling System (CMS) SMS Ver.11.1; CMS-WAVE used to simulate 2D wave spectral transformation. CMS-WAVE coupled with CMS-Flow includes capabilities to compute both hydrodynamics and sediment transport as bed load, suspended load, and total load, and morphology change.	Classified as CoP Preferred

e. POLICY AND LEGAL REVIEW

Policy and legal compliance reviews for draft and final planning decision documents are delegated to the MSC (see Director’s Policy Memorandum 2018-05, paragraph 9).

(ii) Policy Review.

The policy review team is identified through the collaboration of the MSC Chief of Planning and Policy and the HQUSACE Chief of the Office of Water Project Review. The team is identified in Attachment 1 of this Review Plan. The makeup of the Policy Review team will be drawn from Headquarters (HQUSACE), the MSC, the Planning Centers of Expertise, and other review resources as needed.

- The Policy Review Team will be invited to participate in key meetings during the development of decision documents as well as SMART Planning Milestone meetings. These engagements may include In-Progress Reviews, Issue Resolution Conferences or other vertical team meetings plus the milestone events.
- The input from the Policy Review team should be documented in a Memorandum for the Record (MFR) produced for each engagement with the team. The MFR should be distributed to all meeting participants.
- In addition, teams may choose to capture some of the policy review input in a risk register if appropriate. These items should be highlighted at future meetings until the issues are resolved. Any key decisions on how to address risk or other considerations should be documented in an MFR.

This review plan proposes a deviation from standard review format for the draft Detailed Project Report (DPR) and Environmental Assessment (EA), and the Final EA/DPR. This deviation seeks the combination of draft and final DPR and EA reviews to occur together and simultaneous with NEPA Public Review. This combined review would culminate in LRD approval of Final DPR and Finding of No Significant Impact as required by USACE NEPA regulations. The essence of this request is to combine review durations in order to accelerate the schedule while maintaining final MSC approval authority.

In addition to the proposed combination of draft and final DPR and EA review periods, LRB seeks to apply an Integrated Vertical Team Review with LRD at specified intervals. This approach seeks to resolve policy and/or technical issues early to provide the most robust feasibility products for public and ATR review. This approach has been successfully applied to date through LRD involvement in the Alternatives Planning Charette held in February 2020. Integrated Vertical Team Review proposal is detailed in Attachment 4. Application of the Integrated Vertical Team Review will be conducted as follows:

Integrated Vertical Team Review	Objective	Date
Alternatives In Progress Review	Understand path to TSP	May 2020
Ready for Cost LRB Advocate Review	Understand/Review TSP	September 2020
Ready for ATR	Understand/Review draft DPR/EA	November 2020

(ii) Legal Review.

Representatives from the Office of Counsel will be assigned to participate in reviews. Members may participate from the District, MSC and HQUSACE. The MSC Chief of Planning and Policy will coordinate membership and participation with the office chiefs.

- In some cases legal review input may be captured in the MFR for the particular meeting or milestone. In other cases, a separate legal memorandum may be used to document the input from the Office of Counsel.
- Each participating Office of Counsel will determine how to document legal review input.

ATR TEAM			
Function/Discipline	Name (Last, First)	Phone	Office
ATR Leader			USACE-NAE
Environmental / NEPA			
Coastal Engineer			
Cost Engineer			
Climate Preparedness and Resilience			

ATTACHMENT 2: REVIEW PLAN REVISIONS LOG

<All revisions after the initial LRD Commander approved review Plan shall be documented here, including major revisions (i.e. at initiation of Design and Implementation Phase) where LRD Commander is required and the cover page updated to reflect the latest Commander approval date. >

Revision Date	Description of Change	Page / Paragraph Number

ATTACHMENT 3: ACRONYMS AND ABBREVIATIONS

<u>Term</u>	<u>Definition</u>	<u>Term</u>	<u>Definition</u>
ASA(CW)	Assistant Secretary of the Army for Civil Works	NED	National Economic Development
ATR	Agency Technical Review	NER	National Ecosystem Restoration
CAP	Continuing Authorities Program	NEPA	National Environmental Policy Act
CSDR	Coastal Storm Damage Reduction	O&M	Operation and maintenance
DPR	Detailed Project Report	OMB	Office and Management and Budget
DQC	District Quality Control/Quality Assurance	OMRR&R	Operation, Maintenance, Repair, Replacement and Rehabilitation
DX	Directory of Expertise	OEO	Outside Eligible Organization
EA	Environmental Assessment	OSE	Other Social Effects
EC	Engineer Circular	PCX	Planning Center of Expertise
EIS	Environmental Impact Statement	PDT	Project Delivery Team
EO	Executive Order	PAC	Post Authorization Change
ER	Ecosystem Restoration	PMP	Project Management Plan
FDR	Flood Damage Reduction	PL	Public Law
FEMA	Federal Emergency Management Agency	QMS	Quality Management System
FRM	Flood Risk Management	QA	Quality Assurance
FSM	Feasibility Scoping Meeting	QC	Quality Control
HQUSACE	Headquarters, U.S. Army Corps of Engineers	RED	Regional Economic Development
IEPR	Independent External Peer Review	RMC	Risk Management Center
		RMO	Review Management Organization
LERRDs	Lands, Easements, Rights-of-Way, Relocations, Disposal/borrow areas	RTS	Regional Technical Specialist
MCX	Mandatory Center of Expertise	SAR	Safety Assurance Review
MDM	MSC Decision Meeting	USACE	U.S. Army Corps of Engineers
MSC	Major Subordinate Command	WRDA	Water Resources Development Act

