



US Army Corps
of Engineers®
Buffalo District
BUILDING STRONG®

REVIEW PLAN

20 MARCH 2019

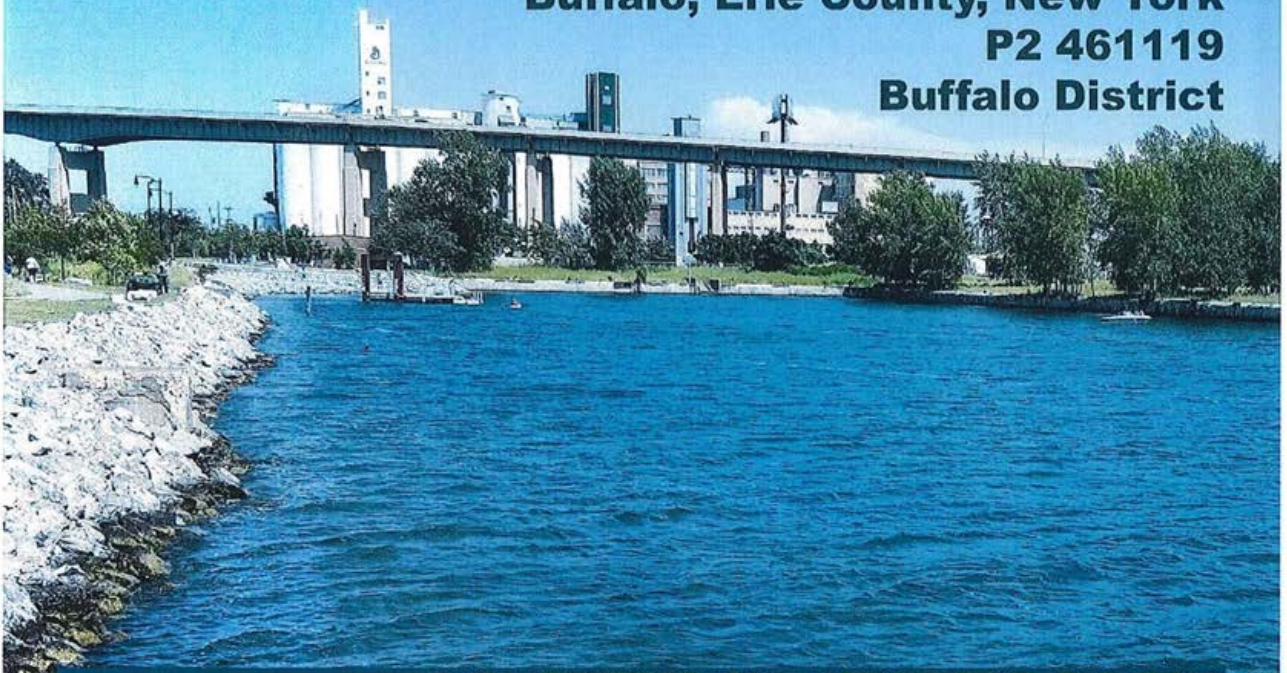
CAP Section 204

Buffalo Outer Harbor RSM, Slip 3

Buffalo, Erie County, New York

P2 461119

Buffalo District



REVIEW PLAN
20 MARCH 2019

Project Name: 204 Buffalo Outer Harbor RSM, Slip 3
Buffalo, Erie County, New York

P2 Number: 461119

Decision Document Type: Detailed Project Report/Environmental Assessment

Project Type: Regional Sediment Management and Ecosystem Restoration

District: Buffalo (LRB)

District Contact: Geoff Hintz, P.E., PMP, Project Manager (716) 879-4155
Geoffrey.K.Hintz@usace.army.mil

Major Subordinate Command (MSC): LRD

MSC Contact: [REDACTED] District Support Program Manager, Great Lakes and Ohio River Division

Review Management Organization (RMO): LRD

RMO Contact: [REDACTED], District Support Program Manager, Great Lakes and Ohio River Division

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:	NONE
Date of Review Plan Web Posting:	TBD
Date of Congressional Notifications:	N/A

Milestone Schedule

	<u>Scheduled</u>	<u>Actual</u>	<u>Complete</u>
Alternatives Milestone:	30 APR 2019		No
Tentatively Selected Plan:	14 JUL 2019		No
Release Draft Report to Public:	15 MAR 2020		No
Agency Decision Milestone:	30 APR 2020		No
Final Report Transmittal:	30 MAY 2020		No
Senior Leaders Briefing:	N/A		N/A
Chief's Report or Director's Report:	N/A		N/A



BUFFALO RSM OUTER HARBOR — BUFFALO, NEW YORK

Beneficial Reuse of Dredged Material

Section 204, Water Resources Development Act 1992, As Amended
Construction General (Continuing Authorities Program)

Location

- Within the City of Buffalo, Erie County, New York, in the Buffalo Outer Harbor.

Project Description

- This is a beneficial use project to place clean, dredged Buffalo Harbor and River sediments into an abandoned shipping slip to create fish and wildlife habitat.
- The project is currently in the feasibility phase which is 100 percent federally funded. If the project proceeds to design and implementation that will be cost shared 65 percent federal and 35 percent nonfederal.

Importance

- Industrial development has severely degraded the Niagara System coastal wetlands. Shorelines have been hardened causing diminished fish nursery and spawning habitat. Dredged sediment will be beneficially used to re-establish habitat.

- The most promising consideration for beneficial use of dredged sediments entails nearshore placement of material in the abandoned slip, adjacent to Wilkeson Pointe at 275 Fuhrman Boulevard in the Buffalo Outer Harbor. Material placement in the slip meets the goals of several stakeholder groups who support wetland restoration.

Consequences

- Failure to implement this project will result in missed opportunities to use clean, dredged sediments as a resource to restore valuable habitat within the Niagara System coastal wetlands.
- It is likely that Buffalo Outer Harbor recreational development will proceed without restoring habitat in the slip, but the opportunity to influence the ecosystem and realize coastal resilience benefits will be lost.

Project Phase	Est. Fed. Cost of Phase	Federal Funding through FY18	FY19 Requirement	FY19 Budget	FY20 Requirement	FY20 Budget
Feasibility ¹	██████	██████	██████	██████	██████	TBD

¹ Feasibility phase is 100 percent federally funded.

Project Sponsor/Customer

The Erie Canal Harbor Development Corporation indicated interest in serving as the nonfederal sponsor by letter dated September 2017.

Congressional Interests

- Representative Brian Higgins D NY-26
- Senator Kirsten Gillibrand D NY
- Senator Charles Schumer D NY

Current Status

- Currently there are ██████ federal funds allocated to this project to conduct the feasibility study, Project output will be a detailed project report and environmental assessment.

Issues

- Availability of federal funds under the CAP Sec 204 authority to complete the project.



Buffalo Outer Harbor Slip 3



Conceptual Plan View of Slip 3

Project Manager:



1. FACTORS AFFECTING THE LEVELS OF REVIEW

- a. **Scope of Review.** This Review Plan defines the scope and level of peer review for the decision document and design and implementation activities for the Section 204 of the Continuing Authorities Program (CAP), beneficial use of dredged material aquatic and shoreline restoration habitat project at Slip 3 on the Buffalo Outer Harbor in the City of Buffalo located in Erie County, New York.

- **Will the study likely be challenging?**

No. The project proposes an ecosystem restoration project to create aquatic habitat at a site within the Buffalo Outer Harbor utilizing dredged sediment to restore ecosystem functions that have been lost or degraded. This will be the second project within the Buffalo Harbor to utilize dredged sediment (Unity Island). The completion of this project is anticipated to provide additional spawning and nursery habitat area for aquatic species, as well as a more productive aquatic community for water-dependent wildlife. Habitat features constructed for project have been utilized in other projects. These features would include: (1) using dredged sediment to build sediment elevation contours to support submerged and emergent aquatic vegetation, and coastal wetland benthic communities; (2) fish shelves to provide suitable habitat for multiple life stages of native fish species; and (3) habitat designed to provide stop-over habitat for migratory birds.

- **Provide a preliminary assessment of where the project risks are likely to occur and assess the magnitude of those risks.**

All risks are low level risks. The conceptual design calls for improving the ecological conditions within the project area by using dredged sediment to raise the existing bottom contours of Slip 3. Approximately 150,000 to 165,000 cubic yards of dredged sediment would be needed to create an estimated 5.5 acres of aquatic habitat or emergent wetland habitat. Implementation of this would require the placement of an engineered armored breakwater at the mouth of the slip in order to hold the dredged material in place and to protect the restored area from any wave energy from the west. Other measures would be dispersed throughout the site to diversify bottom habitat and provide for fish spawning and nesting to promote fish habitat and shelter. This area within the slip would be planted with native plant species in order to create the submergent and emergent aquatic habitats. A riparian buffer consisting of nearshore native plantings would be created along the majority of the project area perimeter. These measures would enhance habitat quality for land and waterbirds that migrate through the region during annual migrations. Risks for this project include:

- Finding an economically feasible technical solution to contain sediment in 26 feet of water; Low level Risk
- Maintaining user access (recreational) to existing paddle-sport users within the slip during and after construction; Low Level Risk
- Assumptions in proposed conceptual alternatives are inaccurate - low level of

design. Additional detailed engineering analysis is required to conduct cost of each alternative. Low level Risk.

- **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 project is not justified by life safety and the study does not involve significant life safety issues.

- **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. This project is consistent with the regional planning initiatives being planned and implemented by the Erie Canal Harbor Development Corporation (ECHDC), the property owner. ECHDC is in the process of conducting public input and feedback on the regional Outer Harbor plan. The plan indicates that an ecosystem restoration project will be implemented by USACE in Slip 3.

- **Is the project/study likely to involve significant public dispute as to the economic or environmental cost or benefit of the project?**

No. This project is consistent with the regional planning initiatives being planned and implemented by the Erie Canal Harbor Development Corporation (ECHDC), the property owner. In addition, the Buffalo River and Niagara River (including the Buffalo Outer Harbor) have been designated as one of forty-three Areas of Concern (AOC) in the Great Lakes by the Great Lakes Water Quality Agreement of 1978, as amended. A number of Beneficial Use Impairments (BUIs) exist for both the Niagara River and Buffalo River AOCs including restrictions on fish and wildlife consumption, degradation of aesthetics, fish tumors or other deformities, degradation of benthos, restriction on dredging activities, and loss of fish and wildlife habitat. The proposed ecosystem restoration action would create wetland and aquatic habitat of significantly higher quality than is currently found in the Buffalo Harbor area, helping to delist some of these BUIs.

- **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. The anticipated project design uses standard design measures and best management practices.

- **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. The project will be consistent with the requirements and limitations of Section 204 of the Water Resources Development Act (WRDA) of 1992, as amended. The total federal cost for developing and constructing individual projects is limited to a federal cost of \$10,000,000. Required cost-sharing funding will be provided by the non-federal sponsor.

- **Will an Environmental Impact Statement be prepared as part of the study?**

No. It is not anticipated that An Environmental Impact Statement will be necessary for this project as the project will not result in negative environmental impacts.

- **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. The site as is exists today is scarce of any existing fish or wildlife species habitat, therefore, no adverse impacts on fish or wildlife habitat is anticipated.

- **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. Due to the current lack of vegetation due to high wave energy in the project area, no negligible adverse impacts are anticipated.

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. All decision documents (including data, analyses, environmental compliance documents, etc.) undergo DQC. This internal review process covers basic science and engineering work products. It fulfils the project quality requirements of the Project Management Plan.

In following the Risk Informed Decision Making process, projects need to be managed to a level appropriate to the risks associated with the project. Over the last several years, Buffalo District has routinely designed and built ecosystem restoration projects for USACE and U.S. Environmental Protection Agency (USEPA) under the Great Lakes Restoration Initiative (GLRI)

Program. Specifically, the Section 204 Unity Island Project was completed in 2018 with the same partners and stakeholders and using dredged material from the same federal navigation channel as this proposed project. Therefore, Coastal Engineering, Geotechnical Engineering, Cost Engineering and Real Estate Reviews can most efficiently and effectively be accomplished by the DQC Team.

Agency Technical Review. ATR will be performed by a qualified individual from within LRD, but from outside the home district that is not involved in the day-to-day production of the project/product. This individual will be USACE ATR certified.

Independent External Peer Review. Type I IEPR is applied in cases that meet criteria where the risk and magnitude of the project are such that a critical examination by a qualified team outside of USACE is warranted. A Type I IEPR is not required as discussed in Section C, Page 9.

Cost Engineering Review. All decision documents shall be coordinated with the Cost Engineering Mandatory Center of Expertise (MCX). The MCX will assist in determining the expertise needed on the ATR and IEPR 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. EC 1105-2-412 mandates the use of certified or approved models for all planning work to ensure the models are technically and theoretically sound, compliant with USACE policy, computationally accurate, and based on reasonable assumptions.

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.

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(s) to undergo Review	Review Level	Start Date	End Date	Cost	Complete
DPR/EA	District Quality Control	03/01/20	03/30/20	■	No
DPR/EA	Agency Technical Review	04/05/20	06/05/20	■	No
DPR/EA	Type I IEPR	N/A	N/A	N/A	N/A
DPR/EA	Policy and Legal Review	03/30/20	04/30/20	■	No

*DQC and ATR will occur for both the Draft DPR/EA Report and Final DPR/EA Report

NOTE: This table may also be used to identify future review work in follow-on phases of a project. This may include products prepared during the pre-construction engineering and design phase or products prepared as part of planning for the Operations and Maintenance phase of a project.

a. DISTRICT QUALITY CONTROL (DQC)

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). The DQC Lead should prepare a DQC Plan and provide it to the RMO and MSC prior to starting DQC reviews. Table 2 identifies the required expertise for the DQC team.

Table 2: DQC Team Disciplines/Expertise

DQC Team Disciplines	Expertise Required
DQC Lead	A senior professional 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).
Planning	A senior water resources planner with experience in Section 204 Projects and expertise in Ecosystem Restoration projects.
Economics	An Economist with experience in Section 204 Projects and expertise in Ecosystem Restoration projects.
Environmental Resources	An Ecologist or Biologist with experience in Section 204 Projects and expertise in Ecosystem Restoration projects.
Cultural Resources	An Environmental Biologist with experience in Section 204 Projects and expertise in Ecosystem Restoration projects.
Hydrology	An Engineer with experience in Section 204 Projects and expertise in Ecosystem Restoration projects. Expertise in wave energy.
Hydraulic Engineering	An Engineer with experience in Section 204 Projects and expertise in Ecosystem Restoration projects. Expertise in wave energy.
Other Engineering – Geotechnical, Coastal, Civil, Structural, Mechanical, etc...	A Coastal and Geotechnical Engineer with experience in Section 204 Projects and expertise in Ecosystem Restoration projects. Expertise in wave energy.
Cost Engineering	A Cost Engineer with experience in dredging and ecosystem restoration.
Operations	A professional experienced with the current dredging operations of the Buffalo River
Real Estate	A Real Estate expert with experience preparing Real Estate Plans in Section 204 projects or similar studies.

Documentation of DQC. Quality Control will be performed continuously throughout the study. A specific certification of DQC completion is required at the draft and final report stages. Documentation of DQC will 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 4).

Documentation of completed DQC should be provided to the MSC, RMO and ATR lead prior to initiating an ATR. The ATR lead 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	Expertise Required
ATR Lead also certified in: <ul style="list-style-type: none"> • Plan Formulation • Environmental Compliance/Ecosystem Restoration 	<ul style="list-style-type: none"> • 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). • The Planning reviewer should be a senior water resources planner with experience in Section 204 CAP studies or ER. • An Ecologist or Biologist with experience in Section 204 Projects an expertise in Ecosystem Restoration projects on fresh water lake ecosystems.

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 lead 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.

c. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)

(i) Type I IEPR.

Decision on Type I IEPR. EC 1165-2-217 exempts CAP Section 204 projects from Type I IEPR, and based on the consideration of project specific factors presented in Section III.C relative to the criteria in Paragraph I.B above, the level of risk of the CAP Section 204 Buffalo Outer Harbor, Slip 3 Project does not warrant a Type I IEPR of the project decision documents.

Products to Undergo Type I IEPR. Not applicable.

Required Type I IEPR Panel Expertise. Type I IEPR is not required for this project.

Documentation of Type I IEPR. Type I IEPR is not required for this project.

(ii) 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. This project does not involve potential hazards that pose a significant threat to human life (public safety) and therefore **a Type II IEPR will not be conducted.**

3. 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 are any models and analytical tools used 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 a planning product. The selection and application of the model and the input and output data is the responsibility of the users and is subject to DQC, ATR, and IEPR.

Table 5: Planning Models. The following models are anticipated to be used to develop the decision document:

Model Name and Version	Brief Model Description and How It Will Be Used in the Study	Certification / Approval
IWR Planning Suite Version 1.0.11.0 and/or Version 2.0	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. IWRPLAN 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 effects alternatives.	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. This index will be one of the metrics used to	LRD guidance Approval

	characterize existing conditions and evaluate ecosystem restoration plans. The index is under review by the ECO-PCX. It is anticipated that it will be approved for use in its appropriate range (i.e. Ohio, New York) however final Headquarters approval has not been granted at this time. The study area for this project is included in the range of this model. Therefore, a specific model approval plan is not required. Agency Technical Reviews (ATR) of the study should include a review of the model's application to this study."	
--	---	--

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 6: Engineering Models. These models may be used to develop the decision document:

Model Name and Version	Brief Model Description and How It Will Be Used in the Study	Approval Status
MCACES	Microcomputer-Aided Cost Estimation System; Used to generate detailed cost estimates for each alternative.	Approved
HEC-RAS 4.0 (River Analysis System)	The Hydrologic Engineering Center's River Analysis System (HEC-RAS) program provides the capability to perform one-dimensional steady and unsteady flow river hydraulics calculations. The program will be used for steady flow analysis to evaluate the future without- and with-project conditions in Slip 3.	HH&C CoP Preferred Model

The above listed engineering models are anticipated to be used in the development of the decision document: HEC-RAS hydraulic modeling analysis may be performed by Buffalo District Engineering.

4. POLICY AND LEGAL REVIEW

- a. 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).

(i) 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.

(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.

ATTACHMENT 1: TEAM ROSTERS

PROJECT DELIVERY TEAM			
Name	Office	Position/Discipline	Phone Number
[REDACTED]	LRB	Project Manager	[REDACTED]
[REDACTED]	LRB	Plan Formulator	[REDACTED]
[REDACTED]	LRB	Environmental Analysis	[REDACTED]
[REDACTED]	LRB	Lead Engineer/Civil Engineer	[REDACTED]
[REDACTED]	LRB	Office of Counsel	[REDACTED]
[REDACTED]	LRB	Real Estate	[REDACTED]
[REDACTED]	LRB	Geotechnical Engineer	[REDACTED]
[REDACTED]	LRB	HTRW	[REDACTED]
[REDACTED]	LRB	Cost Engineer	[REDACTED]
[REDACTED]	LRB	Economist	[REDACTED]
[REDACTED]	LRB	H&H Engineer	[REDACTED]
[REDACTED]	LRB	Coastal Engineer	[REDACTED]
[REDACTED]	LRB	Geospatial Coordinator/GIS	[REDACTED]

DISTRICT QUALITY CONTROL TEAM			
Name	Office	Position/Discipline	Phone Number
[REDACTED]	LRB	Chief, Planning Branch Discipline: Planning	[REDACTED]
[REDACTED]	LRB	Chief, Design Branch Discipline: Design Engineering	[REDACTED]
[REDACTED]	LRB	Chief, Planning Management Discipline: Planning & Economics	[REDACTED]
[REDACTED]	LRB	Chief, Cost Engineering	[REDACTED]
[REDACTED]	LRB	Senior Biologist Discipline: Environmental & Cultural Resources	[REDACTED]
[REDACTED]	LRB	Chief, Coastal/Geotechnical Team Discipline: Coastal/Geotechnical Engineering	[REDACTED]
[REDACTED]	LRB	Chief, Hydraulics & Hydrology Discipline: Hydraulics & Hydrology	[REDACTED]
[REDACTED]	LRB	Attorney/Office of Counsel Discipline: Legal	[REDACTED]

AGENCY TECHNICAL REVIEW TEAM			
Name	Office	Position/Discipline	Phone Number
[REDACTED]	LRC	ATR Lead (Ecosystem Restoration Formulation, LRD Regional Technical Specialist)	[REDACTED]

VERTICAL TEAM			
Name	Office	Position	Phone Number
[REDACTED]	LRD	Risk Analysis Coordinator	[REDACTED]
[REDACTED]	LRD	District Support Program Mgr.	[REDACTED]

POLICY REVIEW TEAM			
Name	Office	Position	Phone Number
Not Applicable			

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 Section 204 Project for Buffalo Outer Harbor, Slip 3, Buffalo, New York. The ATR was conducted as defined in the project’s Review Plan to comply with the requirements of EC 1165-2-217. 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 DrChecks.

SIGNATURE

ATR TEAM LEADER

DATE

SIGNATURE

PROJECT MANAGER (LRB)

DATE

SIGNATURE

ENGINEER

DATE

SIGNATURE

REVIEW MANAGEMENT OFFICE

DATE

COMPLETION OF AGENCY TECHNICAL REVIEW

Significant concerns and the explanation of the resolution are as follows:

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

SIGNATURE

CHIEF, ENGINEERING DIVISION (LRB)

DATE

SIGNATURE

CHIEF, PLANNING DIVISION (LRB)

DATE

ATTACHMENT 3: REVIEW PLAN REVISIONS

Revision Date	Description of Change	Page / Paragraph Number
22 Feb 2019	Table 1, Page 5 – revised estimated costs; clarified reviews	Page 5, Table 1
22 Feb 2019	Table 2, Page 6 – added Real Estate; and minor edits	Page 6, Table 2
22 Feb 2019	Table 5, Page 10 – revised LQHEI, final sentence	Page 10, Table 5
22 Feb 2019	Attachment 1, Team Rosters – Revised PDT, Added DQC members	Page 13
22 Feb 2019	Cost Engineering Paragraph – minor edits	Page 4
5 March 2019	LRD Comments - Edits to ATR Review	Pages 5, 8 and 13
14 March 2019	LRD Comments – Edits to ATR Review	Pages 3, 5, 8 and 13

ATTACHMENT 4: ACRONYMS AND ABBREVIATIONS

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