DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SOUTH ATLANTIC DIVISION
60 FORSYTH STREET SW, ROOM 10M15
ATLANTA, GEORGIA 30303-8801

CESAD-RBT 30 October 2018

MEMORANDUM FOR COMMANDER, JACKSONVILLE DISTRICT

SUBJECT: Approval of Review Plan of the Big Fishweir Creek, Continuing Authorities Program Section 206, Aquatic Ecosystem Restoration Project, Duval County, Florida

1. References:

a. Memorandum, CESAJ-EN-Q, 19 October 2018, subject as above.

b. Engineering Circular (EC) 1165-2-217, Water Resources Policies and Authorities Review Policy for Civil Works, 20 February 2018.

c. Water Resources Development Act of 1996, Public Law 104-303, 12 October 1996.

2. The Review Plan (RP) for the design and construction phases of the Big Fishweir Creek, Continuing Authorities Program Section 206, Aquatic Ecosystem Restoration Project and concurrence with the conclusion that a Type II Independent External Peer Review (IEPR) of the subject project is not required, reference 1.a, has been reviewed by the South Atlantic Division (SAD) and is hereby approved in accordance with reference 1.b.

3. SAD concurs with the District's RP recommendation that outlines the requirements for District Quality Control (DQC), Agency Technical Review (ATR), and Biddability, Constructability, Operability, Environmental and Sustainability (BCOES) Review. The Safety Assurance Review/Type II Independent External Peer Review is not required. Documents to be reviewed include Plans and Specifications and Design Documentation Report.

4. The South Atlantic Division Office (SAD) shall be the Review Management Organization for this project.

5. The District should take steps to post the approved RP to its website and provide a link to CESAD-RBT. Before posting to the website, the names of Corps/Army employees should be removed. Subsequent significant changes to this RP, such as scope or level of review changes, should they become necessary, will require new written approval from this office.

6. The SAD point of contact is [redacted].

[redacted]

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207-8915

9 OCT 2018

CESAJ-EN-Q

MEMORANDUM FOR Commander, South Atlantic Division (CESAD-RBT), 60 Forsyth Street SW, Room 10M15, Atlanta, GA 30303

SUBJECT: Approval of Review Plan of Big Fishweir Creek, Continuing Authorities Program Section 206, Aquatic Ecosystem Restoration Project, Duval County, Florida

1. References.

a. Engineering Circular (EC) 1165-2-217, Civil Works Review, 20 Feb 18.

b. Water Resources Development Act of 1996, Public Law 104-303, 12 Oct 96.

2. I hereby request approval of the enclosed Review Plan for the design and construction phases of the Big Fishweir Creek Aquatic Ecosystem Restoration Project and concurrence with the conclusion that a Type II Independent External Peer Review (IEPR) of the subject project is not required. The recommendation not to perform a Type II IEPR is based on the EC 1165-2-217 Risk Informed Decision Process as presented in the Review Plan. The Review Plan complies with applicable policy, provides for Agency Technical Review, and has been coordinated with the CESAD. It is my understanding that non-substantive changes to this Review Plan, should they become necessary, are authorized by CESAD.

3. The district will post the CESAD approved Review Plan to its website and provide a link to the CESAD for its use. Names of Corps/Army employees will be withheld from the posted version, in accordance with guidance.

4. If you have any questions regarding the information in this memo, please feel free to contact [redacted].

[redacted]

Encl

PROJECT REVIEW PLAN

For

Preconstruction, Engineering and Design Phase Implementation Documents

For

Big Fishweir Creek

Continuing Authorities Program Section 206
Aquatic Ecosystem Restoration Project

Duval County, Florida

Project P2 number: 138543

Jacksonville District

September 2018

US Army Corps of Engineers ®

TABLE OF CONTENTS

1. PURPOSE AND REQUIREMENTS

a. Purpose

This Review Plan defines the scope of review activities for the Big Fishweir Creek - Aquatic Ecosystem Restoration Project, Duval County, Florida. As discussed below, the review activities consist of a District Quality Control (DQC) effort, an Agency Technical Review (ATR), and a Biddability, Constructability, Operability, Environmental, and Sustainability (BCOES) Review. Also as discussed below, an Independent External Peer Review (IEPR) is not recommended. The project is in the design phase, and the related documents including Plans and Specifications (P&S) and a Design Documentation Report (DDR) are the implementation documents. Upon approval, this review plan will be included into the Project Management Plan for this project as an appendix to the Quality Management Plan.

b. References

(1). ER 1110-2-1150, "Engineering and Design for Civil Works Projects", 31 August 1999

(2). ER 1110-1-12, "Engineering and Design Quality Management", 31 March 2011

(3). EC 1165-2-217, "Civil Works Review", 20 February 2018

(4). ER 415-1-11, "Biddability, Constructability, Operability, Environmental, and Sustainability (BCOES) Review", 1 January 2013

(5). SAJ EN QMS 02611, "SAJ Quality Control of In-House Products: Civil Works PED", 21 November 2011

(6). SAJ EN QMS 08550, "BCOES Reviews", 21 September 2011

(7). Enterprise Standard (ES) 08025, "Government Construction Quality Assurance Plan and Project/Contract Supplements"

(8). Enterprise Standard (ES) 08026, "Three Phase Quality Control System"

(9). P2 # 138543, Project Management Plan, Big Fishweir Creek, Florida, February 2007

(10). Big Fishweir Creek Final Integrated Detailed Project Report and Environmental Assessment, January 2012

c. Requirements

This review plan was developed in accordance with EC 1165-2-217, 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, and construction. The EC provides the procedures for ensuring the quality and credibility of U.S. Army Corps of Engineers (USACE) decision, implementation, and operations and maintenance documents and other work products. The EC outlines five levels of review: District Quality Control (DQC), Agency Technical Review, Independent External Peer Review, Policy and Legal Review, and a Biddability, Constructability, Operability, Environmental, and Sustainability Review.

d. Review Plan Approval and Updates

The South Atlantic 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. Like the PMP, the Review Plan is a living document and may change as the project progresses. The Jacksonville 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 A. 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, will be posted on the Jacksonville District's webpage. The latest Review Plan will be provided to the RMO and home MSC.

e. Review Management Organization

The South Atlantic Division (SAD) is designated as the Review Management Organization (RMO). The RMO, in cooperation of the vertical team, will approve the ATR team members selected by the Jacksonville District US Army Corps of Engineers (CESAJ). CESAJ will assist SAD with management of the ATR and will develop the charge to reviewers.

2. PROJECT INFORMATION

a. Project Location

Big Fishweir Creek is a short tributary of the St. Johns River, located about 24 miles upstream from the St. Johns River mouth in the Ortega area of Jacksonville (Duval County). The watershed is covered by mature residential developments and some commercial developments. The BFWC project area resides within a high usage and visible urban community. The creek's location, among residences and businesses, helps to distinguish its need for aquatic restoration.

The portion of the St. Johns River where BFWC enters is tidally influenced. This tidal portion ranges from nearly freshwater (0.5 to 5.0 parts per thousand (ppt)) to brackish (5.0 to 18.0 ppt) depending on seasonal conditions.

Figure 1 is a map showing the location of Big Fishweir Creek (creek) on the west side of Jacksonville. It is just north of the Ortega River mouth into the St. Johns River.

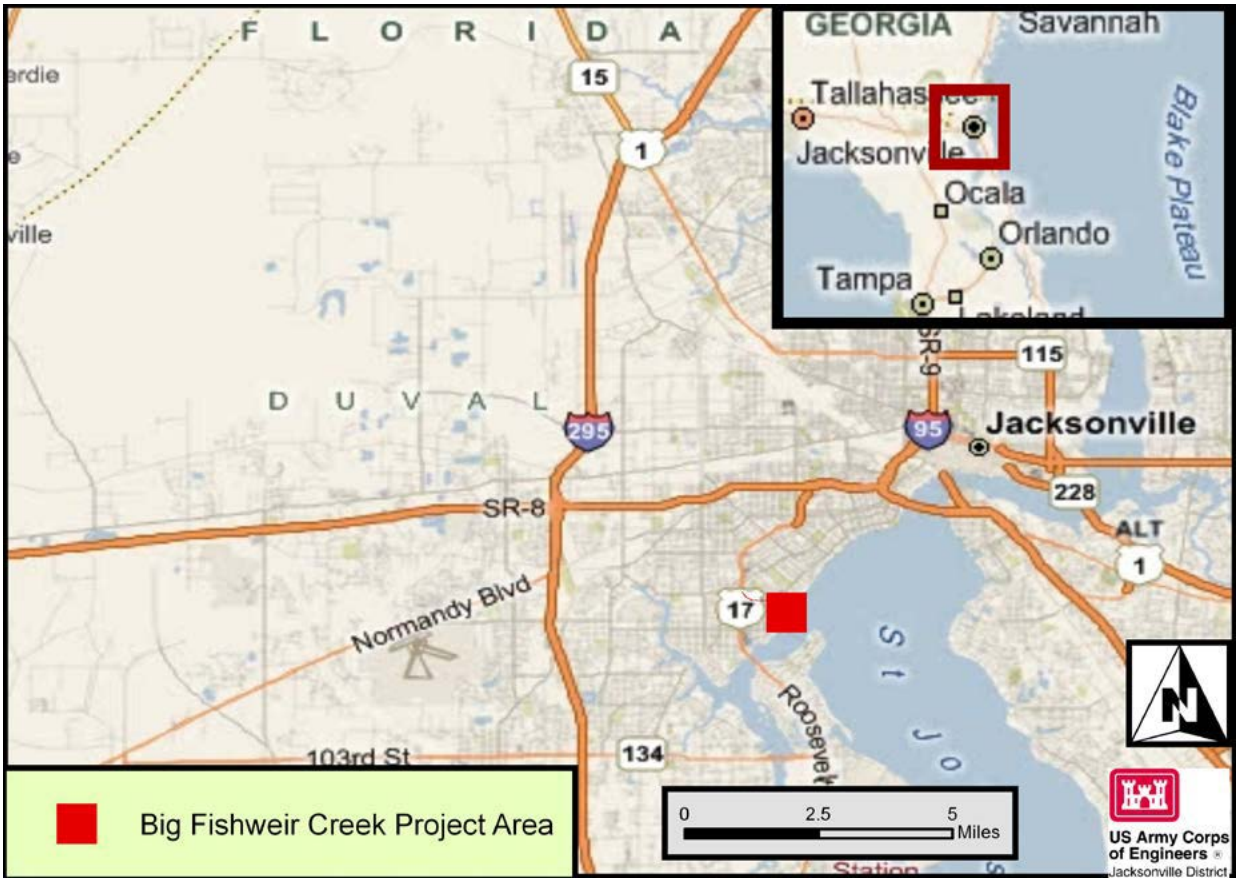

Figure 1: Project Map

b. Project Authorization

The Big Fishweir Creek Study was authorized under Section 206 of the Water Resources Development Act (WRDA) of 1996 (P.L. 104-303) as amended. Big Fishweir Creek has become shallow and flow has been restricted by accumulated sediments coming from urban development and runoff in the watershed over the past 50 years. As a result of this sediment accumulation, the creek bottom has been covered and raised by fine silt, emergent and submerged aquatic vegetation have not flourished, access for endangered West Indian manatees has been reduced, and fish habitat value has decreased in comparison to historic conditions. Sediments now covering the Creek bottom need to be removed and immobilized and tidal flushing needs to be re-established in order to bring the waters back to meet habitat requirements for the mammals, fish, birds and vegetation formerly found there.

c. Project Description

Flow and tidal exchange are limited in the creek, due to impeded circulation caused by shoaling. The mucky bottom is not suitable habitat for rooting of many desirable submerged and emergent aquatic species. Many species of undesirable “weedy” plants have become established along surrounding shores. West Indian manatees, an endangered species, formerly visited the creek to forage on the tape grass but are currently unable to access the area due to the shoaling.

The upstream section of Big Fishweir Creek (Area A) consists of a forested riparian zone and freshwater marsh (Figure 2). The width of the riparian zone varies from approximately 25 feet to over 100 feet. The forested floodplain is partially obstructed from frequent hydrological flushing from the stream along the north bank. A berm is present on the north bank although no berm occurs on the south bank. A small area of freshwater marsh occurs on the fringe as a result of the berm on the north bank in Area A, where the tree canopy thins to less than 30%.

The freshwater marsh, described in Area A, continues through the upstream portions of Area B (see Figure 2). The marsh terminates west of the Herschel Street Bridge, mid-section of the project, where urbanized development extends to the north bank at the bridge crossing. Significant urban development occurs along the stream banks of Area B, including single family and condominium residential buildings, commercial retail activities, and associated amenities. Structures along the shoreline include seawall armoring, as well as boat mooring structures such as pilings, docks, lifts, canopies, and boat houses.

The mid-section of the project is located several hundred feet upstream of the bridge crossing to the confluence with the Little Fishweir Creek. The stream is considerably narrower upstream but widens as it approaches the confluence with the Little Fishweir Creek. Mixed hardwood bottomland lines the stream on the south bank to the bridge crossing. Freshwater marsh is present on the north bank.

In the downstream portion of Area B, east of the bridge, the creek's character transitions to brackish water emergent marsh due to tidal influence and lateral widening. Several small and moderately sized tidal flat shoals are exposed at low tide. Although tidally influenced, the stream appears to be primarily a freshwater to oligohaline system as evidenced by shoreline vegetation. However, as salinity increases in drought conditions, the lower portion of the creek may support a more salt tolerant plant community.

Area C encompasses the tidally influenced Little Fishweir Creek. The project area begins at the outfall of a drainage culvert within a residential neighborhood. On-site field visits by Corps biologists observed a large freshwater/brackish water marsh on the east side of the stream at its confluence with Big Fishweir Creek which is described below (Figure 3). Most of the stream shoreline is armored by a concrete seawall with recreational boat mooring structures extending into the channel. A commercial condominium building at the north bank confluence of Little Fishweir Creek has a covered parking lot and maintained lawn to the shoreline edge, which includes moderately sloping concrete.

Due to the sediment build-up on the bottom of the channel, the waterway is not navigable by watercraft other than small craft such as canoes and kayaks. The former mouth of Little Fishweir Creek has also become non-navigable. The remnant of this creek can be observed at mean low water within the marsh where Area C converges with Area D. A small stream extends unobstructed a few hundred feet to its confluence with Big Fishweir Creek at a re-routed outlet. This small stream is a result of a 1960's dredging project.

Sediment build-up in the lower channel of Big Fishweir Creek has produced a delta within Area D. Shoals occur in the channel at low tide, and fan out to form the delta opening into the St. Johns River. The delta was formed of deposited sediments that include tidal flat and littoral shelves within the lower stream area. Emergent vegetation is present on the north side of the stream at the confluence of the St. Johns River outside of the project area. Surface water in Area D is slightly turbid and tannin stained.

An emergent freshwater/brackish water marsh exists on the northern side of the stream, which extends from Little Fishweir Creek to the mouth of the St. Johns River (Figure 3). Four boardwalks provide access across the marsh to attached boat docks and have reduced vegetation cover in the marsh. The shoreline of Area D has mooring structures, docks, and seawall armoring. Emergent vegetation grows on small littoral shelves at structure bases. Single family residences line the southern bank. Amenities associated with the residences include landscaping with horticultural plantings and grassy lawns.

Figure 2: Project Areas A and B

Figure 3: Project Areas C and D

Previous studies by the Florida Department of Environmental Protection and the St. Johns River Water Management District identified causes of the sediment buildup on the bottom of Big Fishweir Creek as (1) construction within the drainage basin, including early urban/residential development and improvements to Highway U.S. 17; (2) failing septic tanks, now being replaced; and (3) illicit cross connections between storm water and sewer systems. Most of these previous conditions have been remedied or are under remediation at present. However, the built-up sediments remain on the creek bottom, impeding flushing. The purpose of the project is to improve aquatic habitat by removing and immobilizing the accumulated sediment blanket on the creek bottom, improving habitat for wading birds, fish and aquatic vegetation and enhancing access for manatees, which formerly used the Creek and fed on submerged aquatic vegetation.

Currently, work for the Big Fishweir Creek Project will include the following:

- Removal of sediments from all areas within the project limits,
- Creation of a brackish marsh island,
- Planting of emergent vegetation (EV),
- Planting of submerged aquatic vegetation (SAV),
- Removal of nuisance/invasive vegetation, and
- Wetland reconnection via “cut thru berm” construction.

The sediment that is targeted for removal consists of accumulated anthropogenic material in the stream bed. Removal of approximately 32,000 cubic yards of sediment will create two channels at the mouth of Big Fishweir Creek that will converge to form one channel heading upstream to the project limit. The target depth of the channel(s) would be four to six feet below mean low water in the lower and central portion of the stream and at least four feet in the upper channel. The pattern of the channels near the mouth of the stream would be routed around the proposed created marsh island before joining the St Johns River.

Dredged material from the channels would constitute the foundation of the marsh island and is expected to encompass some 2.3 acres at the mouth of Big Fishweir Creek. The material will be encased in geo-textile tubes that will be configured to form the foundation of the island. In addition, sand substrate from the upper portion of the stream will be used to cap the newly formed island and will provide the proper medium for vegetation plantings. A sediment trap will be dredged at the base of the island to manage sediment loading by controlling current velocity, thus decreasing future maintenance of the stream. A series of manual cuts will be made along the berm in the upper-most portion of BFWC to provide access of surface water into the fringing wetlands to restore sheet flow hydrology to the water-starved systems.

Emergent herbaceous species planting activities are proposed for areas of the freshwater and brackish water marsh, brackish marsh island, tidal flats, and littoral shelves. The majority of the plantings will be dedicated to the created marsh island. Individual species will be planted by bare-root plugs or within containers at the supplier-recommended spacing. Submerged aquatic vegetation will be planted along the perimeter of the marsh island that remains inundated during low tide. Geo-tubes containing the proper growth medium, such as medium to fine-grained sand, will be hand-planted with vegetation plugs or seeds. Also, submerged aquatic vegetation species may be planted in direct contact with the substrate along littoral shelves.

Invasive/exotic vegetation removal will occur throughout the project area, and will also include the removal of undesirable aquatic species that are present along the stream banks. Manual hand removal and some limited herbicide application non-toxic to aquatic habitat will be used for the eradication of undesirable species.

d. Public Participation

The Jacksonville District Corporate Communications Office continually keeps the affected public informed on Jacksonville District projects and activities. A summary from every public meeting will be provided to the review team. The approved review plan will be posted on the Jacksonville District Internet. Any comments or questions regarding the review plan will be addressed by the Jacksonville District.

e. In-Kind-Contributions by Project Sponsor

There are no in-kind sponsor contributions related to the P&S and DDR that will affect this review plan or related reviews.

f. Civil Works Cost Engineering Mandatory Center of Expertise Review and Certification

The cost related documents associated with the P&S and DDR and the associated contract do not require external peer review or certification by the Cost Engineering Mandatory Center of Expertise (MCX).

3. DISTRICT QUALITY CONTROL

District Quality Control and Quality Assurance activities for DDRs and P&S are stipulated in ER 1110-1-12, Engineering & Design Quality Management and SAJ EN QMS 02611. The subject project DDR and P&S will be prepared by the Jacksonville District using ER 1110-1-12 procedures and will undergo District Quality Control. SAJ EN QMS 02611 defines DQC as the sum of two reviews, Discipline Quality Control Review (DQCR) and Product Quality Control Review (PQCR). Product Quality Control Review Certification is the DQC Certification and will precede ATR.

4. AGENCY TECHNICAL REVIEW

a. Risk Informed Decision on Appropriate Level of Review

PED phase implementation documents are being prepared for the project. Therefore, an ATR of the P&S and DDR documents will be required.

b. ATR Scope.

Agency Technical Review (ATR) is undertaken to "ensure the quality and credibility of the government's scientific information" in accordance with EC 1165-2-217 and ER 1110-1-12. An ATR will be performed on the P&S and DDR pre-final submittals.

ATR will be conducted by individuals and organizations that are external to the Jacksonville District. The ATR Team Leader will be a Corps of Engineers employee outside the South Atlantic Division. The required disciplines and experience are described below.

ATR comments are documented in the DrChecks^{sm} model review documentation database. DrChecks^{sm} is a module in the ProjNet^{sm} suite of tools developed and operated at ERDC-CERL (www.projnet.org). At the conclusion of ATR, the ATR Team Leader will prepare an ATR Review Report that summarizes the review. An outline for an ATR Review Report is in Attachment C. The report will include at a minimum the Charge to Reviewers, ATR Certification Form from EC 1165-2-217, and the DrChecks^{sm} printout of the comments.

c. ATR Disciplines.

As stipulated ER 1110-1-12, ATR members will be sought from the following sources: regional technical specialists (RTS); subject matter experts (SME) certified in CERCAP; senior level experts from other districts; Center of Expertise staff; experts from other USACE commands; contractors; academic or other technical experts; or a combination of the above. The ATR Team will be comprised of the following disciplines; knowledge, skills and abilities; and experience levels.

Geotechnical Engineering and Engineering Geology. The team member should be a registered professional and should have a minimum of 10 years of experience. Experience shall encompass geologic and geotechnical analyses that are used to support the development of Plans and Specifications for navigation dredging projects.

Civil Engineering. The team member should be a registered professional engineer with 5 years of experience in civil/site work projects. Experience should include dredging and disposal operations, embankments, channels, revetments, geo-tube installment and application, and navigation project features.

Hydraulic Engineering. The team member should be a registered professional engineer with 5 years of experience in tidally influenced and river dredging work projects. Experience should include dredging and disposal operations, embankments, channels, revetments, and navigation project features.

Environmental Engineering. The team member should be a registered professional engineer with 5 years of experience in dredging and placement of tidally influenced and river dredging work projects. Experience should include dredging and disposal operations, embankments, channels, revetments, and navigation project features. The team member should have experience in NEPA compliance activities and preparation of Environmental Assessments and Environmental Impact Statements for navigation or shore protection projects.

ATR Team Leader. The ATR Team Leader should have experience with navigation projects and have performed ATR Team Leader duties in the past. ATR Team Leader can also serve as a co-duty to one of the review disciplines.

d. ATR Reviewer Privacy

The names of

5. BIDDABILITY, CONSTRUCTABILITY, OPERABILITY, ENVIRONMENTAL, AND SUSTAINABILITY REVIEW

The value of a BCOES review is based on minimizing problems during the construction phase through effective checks performed by knowledgeable, experienced personnel prior to advertising for a contract. Biddability, constructability, operability, environmental, and sustainability requirements must be emphasized throughout the planning and design processes for all programs and projects, including during planning and design. This will help to ensure that the government's contract requirements are clear, executable, and readily understandable by private sector bidders or proposers. It will also help ensure that the construction may be done efficiently and in an environmentally sound manner, and that the construction activities and projects are sufficiently sustainable. Effective BCOES reviews of design and contract documents will reduce risks of cost and time growth, unnecessary changes and claims, as well as support safe, efficient, sustainable operations and maintenance by the facility users and maintenance organization after construction is complete. A BCOES Review will be conducted for this project. Requirements and further details are stipulated in ER 1110-1-12, ER 415-1-11, and 08550-SAJ, BCOES Reviews.

6. INDEPENDENT EXTERNAL PEER REVIEW

a. General.

EC 1165-2-217 provides implementation guidance for both Sections 2034 and 2035 of the Water Resources Development Act (WRDA) of 2007 (Public Law (P.L.) 110-114). The EC addresses review procedures for both the Planning and the Design and Construction Phases (also referred to in USACE guidance as the Feasibility and the Design and Implementation Phases). The EC defines Section 2035 Safety Assurance Review (SAR), Type II Independent External Peer Review (IEPR). The EC also requires Type II IEPR be managed and conducted outside the Corps of Engineers.

b. Type I Independent External Peer Review Determination.

A Type I IEPR is primarily associated with decision documents. A Type I IEPR is not applicable to the implementation documents covered by this Review Plan.

c. Type II Independent External Peer Review Determination (Section 2035).

This project does not trigger WRDA 2007 Section 2035 factors for Safety Assurance Review (termed Type II IEPR in EC 1165-2-217). Therefore, a review under Section 2035 is not required. The factors in determining whether a review of design and construction activities of a project are necessary as stated under Section 2035 along with the applicability statements for this Review Plan are as follows:

(1) The failure of the project would pose a significant threat to human life.

This project consists of channel dredging and failure of the navigation channel will not pose a significant threat to human life.

(2) The project involves the use of innovative materials or techniques.

This project does not involve the use of innovative materials or techniques.

(3) The project design lacks redundancy.

The concept of redundancy does not apply to channel dredging projects.

(4) The project has unique construction sequencing or a reduced or overlapping design construction schedule.

This project's construction sequence and schedule have been used successfully by the Corps of Engineers on this and other similar works. Construction schedules do not have unique sequencing and activities are not reduced or overlapped.

Based on the discussion above, the District Chief of Engineering, as the Engineer-In-Responsible-Charge, does not recommend a Type II IEPR Safety Assurance Review of the P&S and DDR.

7. POLICY AND LEGAL COMPLIANCE

The Jacksonville District Office of Counsel reviews all contract actions for legal sufficiency in accordance with Engineer Federal Acquisition Regulation Supplement 1.602-2 Responsibilities. The subject implementation documents and supporting environmental documents will be reviewed for legal sufficiency prior to advertisement. Once approved, SAJ will post the approved review plan on the SAJ web site for viewing by the public.

8. MODEL CERTIFICATION AND APPROVAL

The project does not use any engineering models that have not been approved for use by USACE.

9. PROJECT DELIVERY TEAM DISCIPLINES

Discipline/Expertise
Geomatics & Survey
Civil Site Design / Construction
Geotechnical Engineering
Environmental Engineering
Geology
Coastal Engineering
Hydraulic Engineering

10. BUDGET AND SCHEDULE

a. Project Milestones.

Task	Date
DQCR	August 2019
PQCR/DQC*	September 2019
ATR Review	October 2019
ATR Certification	November 2019
BCOES Review	November 2019
BCOES Certification	January 2020

*SAJ EN QMS 02611 defines DQC as the sum of DQCR and PQCR

b. ATR Cost.

Funds will be budgeted to execute ATR and schedule as outlined above. It is envisioned that each reviewer will be afforded 24 hours review plus 8 hours for coordination. The estimated cost range is $35,000 - $40,000.

ATTACHMENT A: APPROVED REVIEW PLAN REVISIONS

Revision Date	Description of Change	Page / Paragraph Number

ATTACHMENT B: PARTIAL LIST OF ACRONYMS AND ABBREVIATIONS

Acronyms	Defined
AFB	Alternatives Formulation Briefing
ATR	Agency Technical Review
BCOES	Biddability, Constructability, Operability, Environmental, and Sustainability Review
BFWC	Big Fishweir Creek
CAP	Continuing Authorities Program
CERCAP	Corps of Engineers Reviewer Certification and Access Program
CY	Cubic Yards
DDR	Design Documentation Report
DQC	District Quality Control
DQCR	Discipline Quality Control Review
EA	Environmental Assessment
EC	Engineering Circular
ER	Engineering Regulation
ERDC-CERL	Engineer Research and Development Center – Construction Engineering Research Laboratory
ESA	Endangered Species Act
ETL	Engineering Technical Lead
EV	Emergent Vegetation
FDEP	Florida Department of Environmental Protection
FONSI	Findings of No Significant Impacts
FSCA	Feasibility and Cost Sharing Agreement
FY	Fiscal Year
GRR	General Reevaluation Report
IEPR	Independent External Peer Review
LPP	Locally Preferred Plan
MCX	Mandatory Center of Expertise
MLLW	Mean Low Low Water
MSC	Major Subordinate Command
NAS	National Academy of Sciences
NEPA	National Environmental Policy Act
ODMDS	Ocean Dredged Material Disposal Site
OMB	Office of Management and Budget
OMRR&R	Operation, Maintenance, Repair, Replacement and Rehabilitation
P&S	Plans and Specifications
PED	Preconstruction Engineering and Design
PDT	Project Delivery Team

Acronyms	Defined
PM	Project Manager
PMP	Project Management Plan
PPA	Project Partnering Agreement
PQCR	Product Quality Control Review
QA	Quality Assurance
QCP	Quality Control Plan
QMP	Quality Management Plan
QMS	Quality Management System
RMC	Risk Management Center
RMO	Review Management Organization
RP	Review Plan
RTS	Regional Technical Specialist
SAD	South Atlantic Division Office
SAJ	South Atlantic Jacksonville District Office
SAR	Safety Assurance Review (also referred as Type II IEPR)
SAV	Submerged Aquatic Vegetation
SME	Subject Matter Expert
USACE	U.S. Army Corps of Engineers
WRDA	Water Resources and Development Act

Attachment C

Big Fishweir Creek
Aquatic Ecosystem Restoration Project

Duval County, Florida

Review of Plans and Specifications (P&S), Design Documentation Report (DDR)

ATR REPORT OUTLINE:

1. **Introduction:**
2. **Project Description:**
3. **ATR Team Members:**

   Geotechnical Engineering and Engineering Geology.

   Civil Engineering.

   Hydraulic Engineering.

   Environmental Engineering.

   ATR Team Leader.
4. **ATR Objective:**
5. **Documents Reviewed:**
6. **Findings and Conclusions:**
7. **Unresolved Issues:**

COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for Big Fishweir Creek Aquatic Ecosystem Restoration Project, Duval County, Florida, including the design documents, plans and specifications, and DDR. The ATR was conducted as defined in the project's Review Plan to comply with the requirements of EC 1165-2-217 and ER 1110-1-12. 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.

_____ _____

NAME Date

ATR Team Leader

_____ _____

NAME Date

Project Manager

_____ _____

NAME Date

Review Management Office Representative

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.

_____ _____

NAME Date

Chief, Engineering Division

SAJ-EN