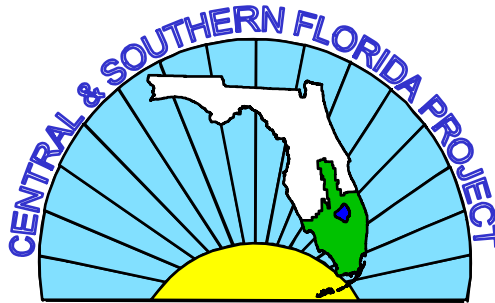


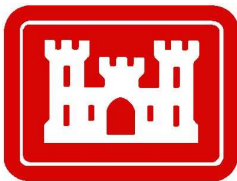
**CENTRAL AND SOUTHERN FLORIDA PROJECT  
COMPREHENSIVE EVERGLADES  
RESTORATION PLAN**



**COMPREHENSIVE EVERGLADES  
RESTORATION PLAN**

**PROJECT MANAGEMENT PLAN**

**Biscayne Bay Coastal Wetlands Phase 2**



**U.S. Army Corps of Engineers  
Jacksonville District**



**South Florida Water  
Management District**

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**Project Management Plan Approvals**

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## Table of Contents

<b>1.</b>	<b>Project Information .....</b>	<b>11</b>
1.1.	Introduction .....	11
1.1.1.	Study Area .....	11
1.2.	Authority.....	12
1.2.1.	State Authority .....	13
1.2.2.	Applicable Policies and Guidance .....	13
<b>2.</b>	<b>Project Scope .....</b>	<b>15</b>
2.1.	BBCW Phase I .....	15
2.2.	BBCW Phase 2 .....	17
<b>3.</b>	<b>Summary of Agency and PDT Roles and Responsibilities .....</b>	<b>18</b>
3.1.	PDT Roles and Responsibilities.....	19
3.2.	Agency Responsibilities.....	20
3.3.	Scope of Modeling Efforts during the PIR.....	22
3.3.1.	List of Models Considered for Use.....	23
<b>4.</b>	<b>Critical Assumptions, Constraints, Considerations, and objectives .....</b>	<b>23</b>
4.1.	Assumptions.....	23
4.2.	Constraints.....	23
4.3.	Considerations.....	23
<b>5.</b>	<b>Project Schedule.....</b>	<b>24</b>
5.1.	Project Milestones .....	24
5.2.	Project Milestones .....	25
<b>6.</b>	<b>Financial Management Plan.....</b>	<b>25</b>
6.1.	Financial Management .....	25
6.2.	Cost Estimates .....	25
<b>7.</b>	<b>Quality Control Plan.....</b>	<b>26</b>
7.1.	PM and PDT QC Responsibilities during Quality Control.....	27
7.2.	Requests for PDT Members, DQC Reviewers, and ATR/IEPR Reviewers.....	27

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<b>8.</b>	<b>Project Delivery Acquisition Strategy</b> .....	<b>29</b>
<b>9.</b>	<b>Risk Management Plan</b> .....	<b>30</b>
9.1.	Requirements .....	30
9.2.	Risk Register .....	31
<b>10.</b>	<b>Safety and Occupational Health Plan</b> .....	<b>31</b>
<b>11.</b>	<b>Change Management Plan</b> .....	<b>31</b>
11.1.	Changes during the Design Phase.....	32
11.2.	Changes during the Construction Phase.....	32
11.3.	PMP Updates and Revisions .....	33
<b>12.</b>	<b>Communications Management Plan</b> .....	<b>33</b>
12.1.	PDT Communication Requirements .....	34
12.1.1.	Schedules.....	35
12.1.2.	Briefings.....	35
12.1.3.	Project Controls.....	36
12.2.	Tribal Government-to-government Consultation .....	36
<b>13.</b>	<b>Value Management Plan</b> .....	<b>36</b>
<b>14.</b>	<b>Data Management Plan</b> .....	<b>37</b>
<b>15.</b>	<b>Closeout Plan</b> .....	<b>37</b>
	<b>Appendix A: PDT Members</b> .....	<b>38</b>
	<b>Appendix B: Project Schedule</b> .....	<b>39</b>
	<b>Appendix C: Certified Project Cost Estimate</b> .....	<b>41</b>
	<b>Appendix D: Public Involvement Plan</b> .....	<b>42</b>

**Tables**

Table 1.	Responsibility assignment matrix.....	21
Table 2.	BBCW2 HQ-tracked milestones. ....	24
Table 3.	Budget to Complete Scope of Work in Section 2.1. ....	25

Table 4. SFWMD & Jacksonville District cost estimates of proposed in-kind work. ....26

Table 5. PMP updates and revisions. ....33

**Figures**

Figure 1. BBCW Phase 1 features. ....16

Figure 2. Phase 2 components as described in Phase 1 PIR. ....18

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**LIST OF ACRONYMS**

ASR ..... Aquifer Storage and Recovery

ATR ..... Agency Technical Review

BMP ..... Best Management Practice

C&SF..... Central and Southern Florida

CERP ..... Comprehensive Everglades Restoration Plan

CESAJ ..... U.S. Army Engineer District, Jacksonville

CWA ..... Clean Water Act

EAA ..... Everglades Agricultural Area

EIS ..... Environmental Impact Statement

EPA ..... U.S. Environmental Protection Agency

FAS..... Floridan Aquifer System

FDACS ..... Florida Department of Agriculture and Consumer Services

FDEP ..... Florida Department of Environmental Protection

FFWCC ..... Florida Fish and Wildlife Conservation Commission

H&H ..... Hydrology and Hydraulics

HTRW ..... Hazardous, Toxic, and Radioactive Waste

IEPR ..... Independent External Peer Review

IPR ..... In-Progress Review

LERRD ..... Lands, Easements, Rights-of-way, Relocations, and Disposal

MPMP ..... Master Program Management Plan

NEPA ..... National Environmental Policy Act

NOAA ..... U.S. National Oceanic and Atmospheric Administration

NPS ..... U.S. National Park Service

P&G..... Principles and Guidelines

PAL ..... Planning Aid Letter

PPA ..... Project Partnership Agreement

PDT ..... Project Delivery Team

PE ..... Project Engineer

PIR ..... Project Implementation Report

PMP ..... Project Management Plan

RECOVER ..... Restoration, Coordination, and Verification

Restudy ..... C&SF Project Comprehensive Review Study



RFP ..... Request for Proposal  
SFWMD ..... South Florida Water Management District  
USACE ..... U.S. Army Corps of Engineers  
USDA-NRCS ..... U.S. Department of Agriculture-Natural Resources  
Conservation Service  
USFWS ..... U.S. Fish and Wildlife Service  
USGS ..... U.S. Geological Service  
WCA ..... Water Conservation Area  
WQ ..... Water Quality  
WRDA ..... Water Resources Development Act

**About this Project Management Plan:**

This Project Management Plan (PMP) provides a summary of tasks required to complete the Project Implementation Report (PIR). It includes general study scope, schedule, and cost information, which will be updated over the course of the PIR. The scope and scale of tasks were developed based on decisions to be made during the study and the Project Delivery Team's (PDT) use of available management and decision-making tools.

The PMP will be revised when required, but not less frequently than yearly, to reflect any changes to tasks and level of efforts needed for successful completion of the study within the required 3-year timeframe from the date of project commencement. Detailed schedule and cost information is available in Primavera Project Management system. It is projected that, as the study progresses, PMP updates will include a list of completed tasks and description of any additional tasks required to complete the PIR analysis and report. The U.S. Army Corps of Engineers' (USACE) and South Florida Water Management District's (SFWMD) acceptance of the task descriptions, time, and cost estimates constitutes agreement with the efforts required, while understanding that more details or additional tasks may have to be provided for future tasks and milestones as the study progresses.

## **1. PROJECT INFORMATION**

### **1.1. Introduction**

The overall Biscayne Bay Coastal Wetlands (BBCW) Project is included in the Comprehensive Everglades Restoration Plan (CERP). The purpose of the CERP is to modify structural and operational components of the C&SF Project to achieve restoration of the Everglades and the south Florida ecosystem, while providing for other water-related needs such as urban and agricultural water supply and flood protection. The 68 components identified in the CERP will work together to benefit the ecological structure and function of the south Florida ecosystem by improving and/or restoring the proper quantity, quality, timing, and distribution of water in the natural system.

Biscayne Bay Coastal Wetlands Phase 2 (BBCW2) is a new study that is an extension of the CERP Biscayne Bay Coastal Wetlands (BBCW) Phase 1 study, which was completed in 2012 and authorized in the Water Resources Reform and Development Act (WRRDA) 2014. The authorized project includes restoration features in three distinct hydrologic regions along Biscayne Bay: Deering Estate, Cutler Wetlands, and L-31 East Flow-way. The BBCW study also identified alternative plans that would provide more ecosystem restoration benefits than the plan that was authorized, but those alternative plans were not recommended because they required more water from the regional system than was available at the time of the study. Since then, additional CERP studies have been authorized and the Combined Operations Plan for Modified Water Deliveries and C-111 South Dade projects are nearing completion. These changes will provide additional water that is potentially available to use for ecosystem restoration at Biscayne Bay. This project management plan will guide the BBCW2 study.

These are the project's goals and objectives:

- Reestablish productive nursery habitat along the shoreline.
- Redistribute freshwater flow to minimize point-source discharges to improve freshwater and estuarine habitat.
- Restore and improve quantity, quality, timing, and distribution of freshwater to the bay, including Biscayne National Park (BNP).
- Preserve and restore spatial extent of natural coastal glades habitat.
- Reestablish connectivity between Biscayne coastal wetlands, C-111 Basin, Model Lands, and adjacent basins.
- Restore nearshore and saltwater wetland salinity regimes.

#### **1.1.1. Study Area**

The Biscayne Bay Coastal Wetlands project area is located in southeast Miami-Dade County, south of Miami and east of Florida City and Homestead, within the SFWMD's Lower East Coast (LEC) water supply planning region. The study area is bounded by south-central Biscayne Bay and BNP to the east, and the Atlantic

Coastal Ridge, and agricultural and suburban development to the north and west. Florida Power & Light Company's (FPL's) Turkey Point nuclear power plant, FPL's Everglades Mitigation Bank, Homestead Air Reserve Base, and the South Dade Landfill are located in the project area.

The project area overlaps several drainage basins, six of which are named for the associated major east-west canals: Canal 100 (C-100), C-1, C-102, C-103, North Canal, and Florida City Canal. These canals are operated to reduce the potential for flood damages as well as to limit salinity intrusion into the local groundwater system. To limit flood damages, water managers use the canal system to lower the groundwater elevation which increases runoff storage potential in the canal basins. Additional flood protection is provided by the L-31E Levee and Canal which runs north-south along South Central Biscayne Bay. The eastern-most water control structures are located at the intersection of the major east-west canals with the L-31E Canal. During the dry season, water managers use the east-west canal network to import water from the northwest, which increases groundwater elevation and limits saltwater intrusion in to the aquifer.

## **1.2. Authority**

On December 11, 2000, the Water Resources Development Act of 2000 (WRDA, 2000) was signed into law (Public Law No. 106-541 of the 106th Congress). Title VI, Section 601 of the Act provides for and guides modifications to the Central and Southern Florida project and describes authorizations specific to the CERP. Section 601(b)(A) "Comprehensive Everglades Restoration Plan Approval" provides authority for CERP:

(b) Comprehensive Everglades Restoration Plan Approval – (A) IN GENERAL. —Except as modified by this section, the Plan is approved as a framework for modifications and operational changes to the Central and Southern Florida Project that are needed to restore, preserve, and protect the South Florida ecosystem while providing for other water-related needs of the region, including water supply and flood protection. The Plan shall be implemented to ensure the protection of water quality in, the reduction of the loss of fresh water from, and the improvement of the environment of the South Florida ecosystem and to achieve and maintain the benefits to the natural system and human environment described in the Plan, and required pursuant to this section, for as long as the project is authorized.

Section 601(d) "Authorization of Future Projects" provides the authority for the preparation of the Project Implementation Report:

(1) IN GENERAL- Except for a project authorized by subsection (b) or (c), any project included in the Plan shall require a specific authorization by Congress.

(2) SUBMISSION OF REPORT- Before seeking congressional authorization for a project under paragraph (1), the Secretary shall submit to Congress—

(A) a description of the project; and

(B) a project implementation report for the project prepared in accordance with subsections (f) and (h).

The BBCW project is one of the many projects included in the CERP. CERP is being implemented as a 50 percent federal and 50 percent non-federal cost-shared program in which: 1) the cost-share balancing occurs at the programmatic level (i.e., individual projects are not required to be cost shared 50/50); 2) there is one Design Agreement covering planning and design for all CERP projects with the SFWMD; and 3) there is one umbrella Master Agreement for construction and operation and maintenance under which individual Project Partnership Agreements (PPA) are executed for each CERP project.

Congress authorized the BBCW project in Section 7002(5)6 of the Water Resources Reform and Development Act (WRRDA) of 2014 in accordance with the recommendations of the Chief of Engineers Report, dated May 2, 2012. The authorized project is located in Miami-Dade County, Florida.

### **1.2.1. State Authority**

During the 1999 legislative session, Florida lawmakers drafted and approved Section 373.1501 of the Florida Statutes providing a legislative finding that CERP is important for restoring the Everglades ecosystem and for sustaining the environment, economy, and social well-being of south Florida. The purpose of Section 373.1501 of the Florida Statute is to authorize the State of Florida to facilitate and support CERP through an approval process concurrent with federal government review and congressional authorization. Further, this section ensures that all project components are implemented through appropriate processes and are consistent with the balanced policies and purposes of Chapter 373 of the Florida Statutes, specifically Section 373.026. Florida lawmakers amended Section 373.026 (8)(b) of the Florida Statutes which directs the Florida Department of Environmental Protection (FDEP) to collaborate with the SFWMD and to approve each project component, with or without amendments, within a specified period.

In the 2000 legislative session, the Florida Legislature created an act relating to Everglades and funding, amending Section 215.22 of the Florida statutes and creating Section 373.470, which is cited as the “Everglades Restoration Investment Act.” The purpose of this act is to establish a full and equal partnership between the state and the Federal governments for the implementation of CERP. This Act requires that approval of a PIR is done in accordance with Section 373.026 of the Florida Statutes before the SFWMD and the USACE execute a Project Cooperation Agreement (PCA) (now called PPA).

### **1.2.2. Applicable Policies and Guidance**

*SMART Planning and 2014 Water Resources Reform and Development Act (WRRDA) Guidance.* In February and March 2012, Major General Walsh issued two planning memoranda on a revised approach to planning studies that emphasized risk-based decision making and early vertical team engagement. These planning memoranda provide the basis for planning modernization efforts, which are a central component of the Civil Works Transformation concepts contained in the WRRDA 2014. The

requirements of planning modernization under the Transformation initiative is to complete high-quality feasibility studies within shorter timeframes (no more than three years), with lower costs (no more than \$3 million), and with concurrent reviews by District, Division, and Headquarters.

*December 2003 CERP Programmatic Regulations (33 Code of Federal Regulations Section Part 385).* The Programmatic Regulations set guidance specific to CERP project requirements relative to the National Environmental Policy Act, Project Implementation Reports, RECOVER review, and Savings Clause analyses specific to reserving water for the natural system and maintaining water supply and flood control levels that existed in 2000.

*30 July 2009 South Atlantic Division Guidance for CERP land Valuation and Crediting Issues.* This guidance states that the national valuation and crediting policy contained in the Corps Real Estate Handbook (ER 405-1-12) will be used for plan formulation, cost estimation, and crediting, except as to lands acquired utilizing federal funds under the 1996 Farm Bill or to which Section 601 (e)(3)(A) are applicable.

*31 August 2009 Headquarters Implementation Guidance for WRDA 2007 Section 2039.* Monitoring plans must contain ecosystem restoration success criteria and adaptive management plans must be developed for ecosystem restoration projects.

*27 May 2010 South Atlantic Division Requirements for CERP Project Implementation Reports and Other Implementation Documents.* This document issued guidance specific to management of exotic or native nuisance vegetation; operational testing and monitoring period; project monitoring requirements; and Lands, Easements; and Real Estate requirement determinations, valuation, and crediting. There are also several signed agreements between the USACE and SFWMD specific to CERP projects

*May 2000 CERP Design Agreement.* USACE and SFWMD executed a CERP design partnership to identify and assign responsibility for the activities to be undertaken associated with the planning, engineering, and design of CERP elements. In accordance with this agreement, USACE and SFWMD developed and approved the CERP Master Program Management Plan, which provides direction and guidance for cost sharing, construction and operations of the CERP projects including BBCW.

*13 August 2009 CERP Master Agreement.* The design agreement was amended by USACE and SFWMD to reflect Section 601(e)(5) of the WRDA 2000 in regard to credits and to reference the Master Agreement to promote uniformity of terms, ease of administration, and efficiency in execution of CERP projects. This agreement sets forth the terms of participation in the construction, operation, maintenance, repair, replacement, and rehabilitation of projects under CERP. The Master Agreement criteria will apply to the BBCW when the project is approved and a project partnership agreement is executed.

## **2. PROJECT SCOPE**

The BBCW project will restore wetland and estuarine habitats. The project will divert an average of 59 percent of the annual coastal structure discharge into freshwater and saltwater wetlands instead of direct discharges to Biscayne Bay. Of the approximately 473.61 acres of freshwater wetlands acquired for the project, 190 acres will benefit from freshwater rehydration as a result of the project. The project is expected to increase the hydroperiods in the target freshwater wetlands from approximately 70 days per year to nearly 200 days per year. This will result in high functioning grassy wetlands which serve as critical habitat to prey fish and wading birds. Out of the total available saltwater wetland acreage of 22,500, this project will increase saltwater wetland function from 1,002 habitat units to 7,398 habitat units (net of 6,396 acres of functionality).

Phase I was the first step toward meeting restoration goals in the study area. By rehydrating coastal wetlands and reducing damaging point source freshwater discharge to Biscayne Bay, the Phase I Recommended Plan is integral to the health of the south Florida ecosystem.

Phase 2 will consider restoration of freshwater wetlands in the Model Lands/Barnes Sound area, the southernmost portion of the study area. The second phase requires a separate planning study for authorization and a tentative schedule is included in **Appendix B** of this document.

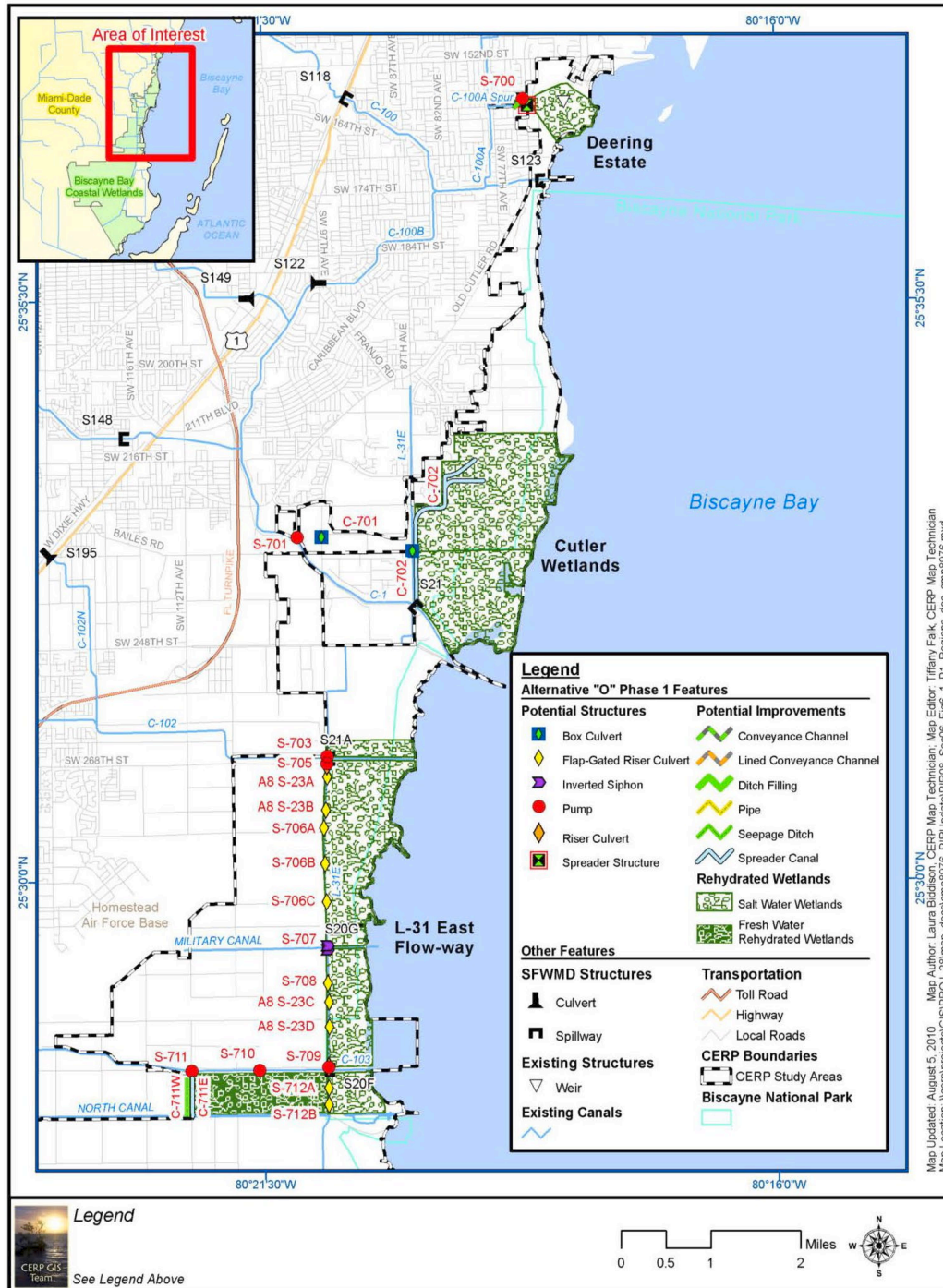
The scope for BBCW2 will be more comprehensive than what was described in the PIR for BBCW Phase 1; Barnes Sound and Card Sound, into Florida Bay. The scope would include considerations of conditions not present at the time of BBCW Phase 1 authorization, e.g., changes in water supply and levels, newly constructed and planned projects that may affect or be affected by BBCW2, and projects that may be planned concurrently for efficient use of resources, e.g., the C-111 Spreader Canal Eastern (C-111E).

### **2.1. BBCW Phase I**

The purpose of the BBCW project is to rehydrate coastal wetlands and reduce damaging point source freshwater discharge to Biscayne Bay. The authorized project encompasses a footprint of approximately 3,761 acres and includes features in three of the project's four sub-components (hydrologically distinct regions of the study area): Deering Estate, Cutler Wetlands, and L-31 East Flow-way. There are no features in the fourth region, Model Land Basin. The authorized project includes: at Deering Estate, a 500-foot extension of C-100A Spur Canal, and delivery of fresh water to Cutler Creek via a 100 cubic feet per second (cfs) pump station (S-700), 500 linear feet (lf) of 60" pipe, and a spreader structure resulting in the creation of a freshwater wetland; at Cutler Wetlands, a 400-cfs pump station, 7,000 linear feet of conveyance canal, 13,160 linear feet of spreader canal, associated culverts, and inflow/outflow structures; and, at L-31 East Flow-way, 5 pump stations (40-100 cfs), an inverted siphon, a series of culverts, a seepage collection ditch, and a spreader canal. Recreational opportunities are also provided within the project footprint.

The BBCW project has been under construction for several years. The Deering Estate sub-component is complete. The L-31 East Flow-way features have been constructed, and others will be constructed soon. The Cutler Wetlands sub-component will be done at a later date.

Figure 1. BBCW Phase 1 features.





## **2.2. BBCW Phase 2**

The BBCW2 study is an extension of the authorized project. The final product will be an Integrated Project Implementation Report and NEPA document. The PIR will require authorization by Congress. The goal of Phase 2 is to achieve further ecosystem restoration in Biscayne Bay and the nearby wetlands.

The study will address ecosystem restoration in locations south of the authorized BBCW project: land south of the North Canal, Model Lands, Card Sound, Barnes Sound, additional locations in Biscayne Bay.

Objectives for BBCW2 are the same as the Phase 1 study:

1. Reestablish productive nursery habitat along the shoreline.
2. Redistribute freshwater flow to minimize point source discharges to improve freshwater and estuarine habitat.
3. Restore and improve quantity, quality, timing, distribution of freshwater to the bay, including Biscayne National Park.
4. Preserve and restore spatial extent of natural coastal glades habitat.
5. Reestablish connectivity between Biscayne coastal wetlands, C-111 Basin, Model Lands, and adjacent basins.
6. Restore nearshore and saltwater wetland salinity regimes.

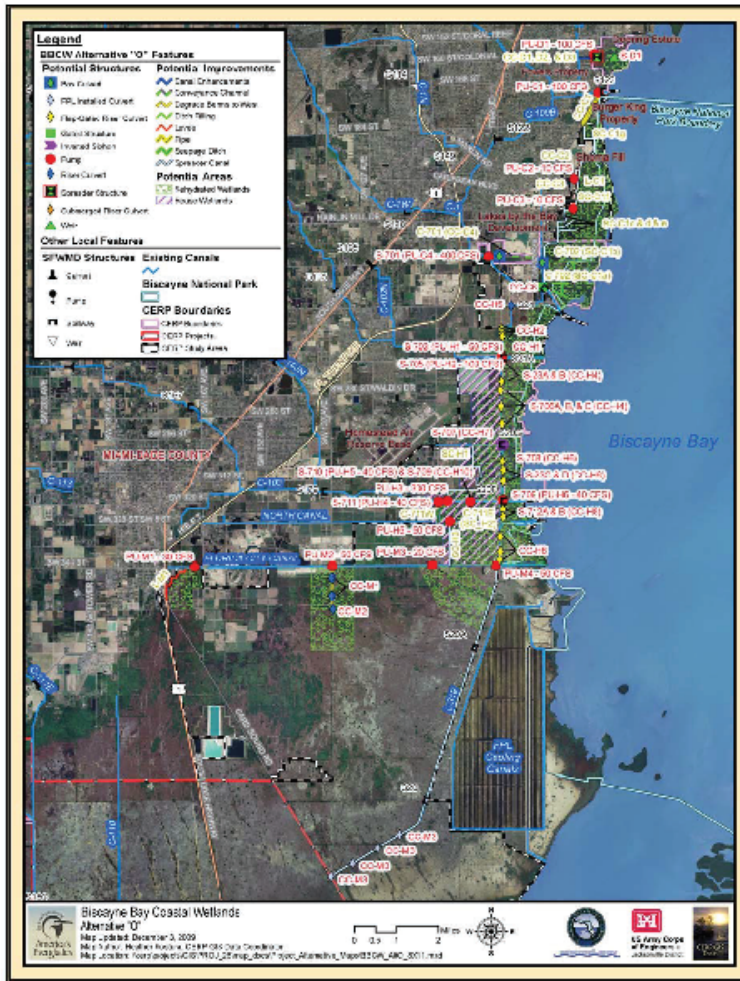
The study will consider changed conditions, reassess prior assumptions, and use new information that was unavailable during the Phase 1 study:

- Monitoring of performance of Phase 1 features.
- Sea level is changing faster than was assumed during the first study. Information sources include USACE Back Bay study, other agencies' monitoring, and modeling information.
- Saltwater intrusion.
- Other ecosystem restoration projects have been approved and are being implemented. These include Central Everglades Planning Project, Combined Operational Plan for C-111 South Dade and Modified Water Deliveries to Everglades National Park, C-111 South Dade, C-111 Spreader Canal Western, rock miners' seepage wall near L-31N, construction near 8.5 Square Mile Area, and other projects.
- Water availability. The other ecosystem restoration projects may increase water availability in the regional canals. Some of this water may be available to use for restoration at Biscayne Bay wetlands.
- Waste water reuse.
- High nutrient concentrations/loads in fresh water sources.
- Land use.
- Population growth.

- Water demands (M&I, agricultural).
- Remediation at Turkey Point.
- New restoration targets (flow, volume, timing) may be available.

Multiple alternative plans will be developed and evaluated. At a minimum, the study will evaluate a No Action, Future without Project condition; the yellow book plan; and Alternate O from the first PIR. Some of the alternatives from the first PIR may be reconsidered. They may perform differently when changed conditions and assumptions are included.

Figure 2. Phase 2 components as described in Phase 1 PIR.



### 3. SUMMARY OF AGENCY AND PDT ROLES AND RESPONSIBILITIES

This section documents the requirements and expectations for the team member and participating agencies.

### 3.1. PDT Roles and Responsibilities

The PDT is charged with ensuring project execution is within scope, schedule, and cost. The PDT includes the following resources and services to accomplish its mission: PM and support staff; geotechnical engineering; cost engineering; construction services; contracting services; legal advice; real estate; hydraulic and hydrology engineering; project formulation; technical reviews; BCOE reviews; safety reviews; and environmental and regulatory compliances.

- a. **PDT** – The PDT provides technical and administrative support, resources, and guidance necessary to successfully complete this PIR/feasibility effort, including participation, preparation of work products, and responses to review comments.
- b. **SFWMD** – The SFWMD is the non-federal sponsor contributing funding and/or in-kind contributions, LERRDs, decision-making, and, for the feasibility phase, has other responsibilities and duties as described in the Design Agreement. The sponsor is an integral part of the PDT in overseeing costs, budget, and schedule, and ensuring quality of products.
- c. **PM** – The PM is the primary point of contact for the sponsor, acting as an advocate and consultant, seeking solutions with the network of experts in the district. PM provides day-to-day management and controls of study execution, including management of the scope, budget, and schedule; coordinating PDT meetings; upward briefing and reporting on study progress; issue-resolution needs; and financial/expense reports. The sponsor's PM executes these responsibilities with sponsor's resources and submission of in-kind work crediting requests. Both PM offices have set budget contingencies to account for additional funding requests for modeling or technical discussions needed to refine alternatives, TSP, or other.
- d. **Planning (PD)** – PD PDT members are responsible for ensuring PDT members understand and follow the planning and NEPA processes; providing guidance and expertise; evaluating information on proposed management measures and alternative plans; cultural resources studies and coordination with the Tribes; discussing and evaluating plan refinements and comparison of alternatives; ensuring performance measures and criteria are appropriate to evaluate the alternatives; coordinating approval of planning-level model certifications, briefing and participating in public involvement meetings; assembling the PIR/feasibility report for approvals in compliance with all federal and state laws and regulations; coordinating and ensuring timely independent external peer review and value-engineering analysis; and for preparing, coordinating; preparing economic analysis; and leading PIR/feasibility coordination and conferences with the vertical team. Planning efforts will also be conducted by the non-federal sponsor to supplement technical expertise and to ensure concurrence on information and analyses through PIR/feasibility process completion.
- e. **Engineering (EN)** – EN PDT members participate and perform technical analysis and documentation, which include hydrologic and hydraulic modeling; PIR-level design, including geotechnical and HTRW analyses;

- model result evaluations; cost estimating; cost-schedule risk analysis; coordinating ATR review for cost certification; value engineering, required for the feasibility report and help in screening of management measures and alternatives. The non-federal sponsor will be responsible for participation and all modeling and associated products as described in more details in **subsection 7.1**.
- f. **Contracting (CT)** – CT PDT members are responsible for contract acquisition and administration duties and responsibilities for task orders necessary for the cultural resource studies. There are no contracting actions anticipated for the non-federal sponsor other than participating in work scope discussion for the cultural resources work to be contracted.
  - g. **Real Estate (RE)** – RE PDT members are responsible for identifying, and working with the non-federal sponsor in identifying, the real estate requirements, analyses, and assurances, and making taking determinations. This includes identifying ownership, obtaining rights of entries, providing real estate cost estimates, providing real estate gross appraisals, providing real estate acquisition maps, and creating the real estate plan in accordance with applicable Corps regulations. Work also includes reviews of and revisions to the PIR/feasibility report and associated documents. The non-federal sponsor will identify all publicly owned lands available for the project and provide all necessary documentation.
  - h. **Office of Counsel (OC)** – OC PDT members are responsible for conducting physical taking analysis, preparing preliminary Attorney’s Opinions of Compensability and Estate Analysis, and providing counsel and advice to ensure the PDT meets its legal and regulatory responsibilities. They also review and provide a Legal Sufficiency statement of decision documents. The non-federal sponsor will provide title policies on lands already owned, research public records on lands not owned to determine estates owned by other public entities, and research ownership information on utilities.
  - i. **Operations Division (OD)** – OD PDT members are responsible for developing an invasive species and land management plan as part of the overall Adaptive Management Plan. OD team members also participate in development of operations optimization for project features and ensure that the proposed operations of features can be implemented.
  - j. **Regulatory (RD)** – RD PDT members are responsible for providing guidance and advice to ensure the PDT meets all regulatory requirements. The team will be responsible for providing funding estimates and approval of the scope, schedule, and budget provided within this PMP.

See **Appendix A** for a list of PDT members and their contact details.

### **3.2. Agency Responsibilities**

The SFWMD and Corps have agreed to the primary responsibilities listed in **Table 1**.

**Table 1. Responsibility assignment matrix.**

DESCRIPTION	SAJ	SFWMD	Eco PCX/ Cost DX	USFWS	IMC	SAD/ HQUSACE
Development & Approval of Project Management Plan	L	P			P	R
NEPA Compliance – Public Meetings	L	P				P
Development and Updates to Peer Review Plan, Report Synopsis, Risk Register and Decision Management Plan	L	P			P	R
Eco PCX Approval of Peer Review Plan & PM's	L	P	A			R
Model Data Collection & Development	P	P			L	
Develop Performance Measures	L	P				
Initial Array of Alternatives	L	P			P	
Screening Level Modeling	P	P			L	
Screening of Initial Array of Alternatives	L	P			P	A
H&H Modeling Existing & Future Without Project Conditions	P	P			L	
H&H Modeling Alternatives	P	P			L	
Ecological Modeling	P	P			L	
Alternative Evaluation	L	P			P	A
TSP – Concept Level Designs	L	P				
Cultural Resources Evaluation	L	P				
Real Estate Analysis Report for EIS	P	L				
Biological Opinion	L	P				
Write Project Implementation Report/EIS	L	P			P	A
Cost Certification	L	P	A			
Agency Technical Reviews (ATR)	P	P	L		P	
RECOVER Reviews	L	P				PI
IEPR	PI		L			

DESCRIPTION	SAJ	SFWMD	Eco PCX/ Cost DX	USFWS	IMC	SAD/ HQUSACE
FWS Coordination Act Report	P	P		L	P	PI
Civil Works Review Board	P	P		P		L / A
Sign Chief's Report	R					L / A

Notes:

- L = Lead (Responsible/Accountable)
- R = Review (Passive role - receives information and engages as needed)
- A = Approve (Active Role/Approval is needed prior to proceeding to next stage of project work)
- PI = Provides Input (provides input into the process and information needed by the Study Team)
- P = Participate (Active Role in assisting and facilitating)

### 3.3. Scope of Modeling Efforts during the PIR

The SFWMD will be responsible for the hydrologic modeling tasks and leading the modeling sub-team. The Interagency Modeling Center (IMC) will perform the majority of the required modeling tasks for the project under the guidance of the SFWMD modeling sub-team lead. The modeling sub-team will consist primarily of SFWMD staff and IMC staff from the SFWMD and USACE, with participation and support by USACE staff to ensure compliance with federal plan formulation strategies and requirements. The SFWMD will be responsible for organizing the modeling sub-team meetings and preparing the agenda and minutes.

The PDT will identify the appropriate base and alternative conditions. With team input, the modelers will update the models as necessary to incorporate any new land use and water use information, develop the associated model assumption tables, and prepare any presentation and additional information regarding same for discussion by the PDT. When all the assumptions and new information have been incorporated, the base runs will be completed, the results will undergo a quality assurance/quality control check, and the modelers will prepare the appropriate spreadsheets, water budgets, and other pertinent information for PDT discussion.

Modelers will coordinate closely with the engineering and ecological sub-teams to remain current on the proposed management measures, performance measures, and evaluation criteria and will provide input to ensure that the teams' recommended alternatives can be modeled with confidence. Once the alternatives are identified, the assumptions and other input will be used to set up and complete the alternative runs. The model output will be post processed to produce the water budgets, tables, and graphics needed for analysis by the PDT. The modeling sub-team will also be responsible for developing the model calibration and application reports for inclusion in the PIR. Additional details are included in the Modeling Work Plan (see **Appendix E**).

### **3.3.1. List of Models Considered for Use**

The PDT will determine which models are best suited to the project.

## **4. CRITICAL ASSUMPTIONS, CONSTRAINTS, CONSIDERATIONS, AND OBJECTIVES**

Work on this project operates under the assumptions and constraints and noted below.

### **4.1. Assumptions**

We make these assumptions concerning the BBCW2 study:

1. All interested parties will work collectively to address technical, policy, and administrative challenges as they are identified.
2. CERP projects will be constructed per the current IDS (C-44, C-43, CEPP).
3. HHD rehabilitation will be completed in late 2022, according to the current schedule.
4. KRR construction will be complete and HWR will be in-place by 2021, according to the current schedule.
5. Sufficient funding will be appropriated in a timely manner to allow for the efficient and effective conduct of the work in this Preliminary PMP.

### **4.2. Constraints**

The following planning constraints are applicable for this project:

1. Comply with all federal, state, and local laws, regulations and policies.
2. Maintain levels of flood protection to agricultural and urban lands (Savings Clause [Section 601 (h)(5)(B) of WRDA 2000]).
3. Maintain levels of water supply service for legal users (Savings Clause [Section 601 (h)(5)(A) of WRDA 2000]).

### **4.3. Considerations**

The following planning considerations apply to this project:

1. Minimize impacts to cultural, historical, and archaeological resources.
2. Avoid, minimize, or provide compensatory mitigation for any impacts to pre-existing compensatory mitigation sites within the project area under Section 404 of the Clean Water Act.
3. Minimize adverse socioeconomic impacts on the local and regional economies.
4. Avoid, minimize, or mitigate any impacts to water quality and to listed threatened and endangered species.
5. Meet applicable water quality standards.

6. Consider existing structural, meteorological, environmental, and hydrologic constraints that restrict water management operations.

## 5. PROJECT SCHEDULE

The project schedule was developed with the following assumptions:

- Resources will be available for execution of work at the times required to complete tasks.
- Sufficient funding will be available throughout the study duration.
- SFWMD and USACE will provide modeling resources to support the evaluation of study alternatives.
- H&H modeling will be limited to three rounds, with round 1 including 3-4 alternatives, round 2 including 1-2 alternatives, and round 3 including optimization of the final alternatives.
- ATR and IEPR will be required.
- The study will conform to SMART planning requirement of three calendar years.
- The schedule is for Phase I through the signing of the Chief's Report; preliminary schedules for design and construction will be developed as part of the PIR.

### 5.1. Project Milestones

The PDT will complete the HQUSACE tracked milestones shown in **Table 2** during the development of the PIR/EIS.

**Table 2. BBCW2 HQ-tracked milestones.**

Milestone Description	Scheduled Milestone Date	Actual Milestone Date
Study Initiation	1 July 2020	
Alternatives Milestone	1 April 2021	
Tentatively Selected Plan Milestone	8 October 2021	
Agency Decision Milestone	6 April 2022	
Senior Leaders Panel	12 October 2022	
Chief's Report	31 January 2023	



## 5.2. Project Milestones

Project schedule with Work Breakdown Schedule, from Study Initiation to transmittal to Congress, is located in **Appendix B**.

## 6. FINANCIAL MANAGEMENT PLAN

The financial management plan includes the study cost share for the BBCW2 study as well as the cost estimates to complete the work in this PMP.

### 6.1. Financial Management

Under the CERP authorizing legislation and program policies, the CERP is implemented as a 50 percent federal and 50 percent non-federal cost-shared program in which:

- the cost-share balancing occurs at the overall CERP programmatic level (i.e., individual projects can be out of balance);
- there is one Design Agreement covering design efforts for all CERP projects; and
- there is one umbrella Master Agreement for construction, under which individual PPAs for construction are executed for each CERP project.

CERP authorizing legislation, implementation guidance, and program policies allows for reasonable costs of work performed by the non-federal sponsor in connection with the study, preconstruction engineering and design, or construction necessary for plan's implementation.

### 6.2. Cost Estimates

The cost estimates for the PIR effort were by the PDT based on the PIR scope of work and work breakdown structure, with appropriate resource costs applied to the activities based on effort and duration. A 10% study contingency has been included. SFWMD effort in support of modeling is not included in the cost estimate provided in this PMP.

**Table 3. Budget to Complete Scope of Work in Section 2.1.**

Fiscal Year	USACE Projected	USACE Actual	SFWMD Projected	SFWMD Actual	Projected Total	Actual Total
2020	83,000		84,000			
2021	625,000		630,000			
2022	707,000		736,000			

Fiscal Year	USACE Projected	USACE Actual	SFWMD Projected	SFWMD Actual	Projected Total	Actual Total
2023	85,000		50,000			
<b>Total</b>	1,500,000		1,500,000			

**Table 4. SFWMD & Jacksonville District cost estimates of proposed in-kind work.**

Construction Work Items	SFWMD Estimate	Corps Estimate
In-Kind Work to be Completed by SFWMD		
Construction Management		
Subtotal		
Work Presently Proposed to be Completed by SFWMD		
Features SFWMD May Construct		
Subtotal		
<b>Total</b>		

**7. QUALITY CONTROL PLAN**

The QC Plan, normally referred as Technical Review Plan, is a component of the USACE’s Quality Management Plan (QMP) available online at: <https://intranet.usace.army.mil/sad/saj/engineering/Pages/QMSProcessList.aspx>. The QCP is a project/product-specific written plan that defines how quality control will be executed for products. A QCP shall be prepared for every engineering product or service, whether accomplished using in-house personnel, other USACE offices, or contractor forces (“contractor forces” include other government agencies as well as private industry sources).

The USACE has created various documents that address quality standards as they apply to various programs, products, and services. Those documents can be found and/or referenced in the USACE Quality Management Information System (QMIS), SAD QMIS, and Jacksonville District QMIS and govern the project’s Quality Control. Below are USACE documents pertinent to the QC:

- EC 1165-2-217, Review Policy for Civil Works
- EC 1105-2-412, Assuring Quality of Planning Models
- ER 1105-2-100, Planning Guidance Notebook, Appendix H, Policy Compliance Review and Approval of Decision Documents, Amendment #1
- ER 1110-1-12, Quality Management
- ER 1110-2-1150, Engineering and Design for Civil Works Projects
- ER 1110-1-8159, Engineering and Design, DRChecks®

The Jacksonville District's QMIS is the electronic tool used by PDT to execute QC.

### **7.1. PM and PDT QC Responsibilities during Quality Control**

**Project Manager (PM)** – The PMs are the PDT leaders and are responsible for ensuring that the customer's quality objectives are met. This includes assuring that the team's efforts stay focused on the customer's needs and that all work is integrated and conducted in accordance with a PMP. In the quality management process, the PMs provide leadership and facilitation to the PDT; assure customer involvement throughout the process; ensure that the customer understands applicable standards, laws, and codes; work with the PDT to determine the procedures necessary to produce a quality product; and work with customer early on to establish/define quality objectives.

**Project Delivery Team (PDT)** – The PDT team members form an interdisciplinary group with individual members accountable for product quality in their respective areas of responsibility. This team is responsible for producing a decision or implementation document. In the quality management process, the PDT team members ensure the quality of the work that they produce; keep commitments for completion of their portion of the project, per the PMP; and understand the need for and maintain fiscal stewardship.

The PDTs are to interpret, translate, and apply quality objectives to the project. The project-specific quality objectives must be prescriptive, understandable, realistic, and when possible, measurable. These project-specific quality objectives are included in the project technical review plan available online. The PDT will conduct the work effort in such a fashion that these objectives are achieved. The PDT will ensure that the various checks and balances are in place to allow the product to meet quality standards and document the achievements of the quality objectives through certifications, after action reviews, meeting notes; and forwarding the more significant improvements to other teams through the annual lessons learned meetings, Civil Works summit meetings, or other venues. Only then can the level of success (i.e., quality performance) of the project be determined.

### **7.2. Requests for PDT Members, DQC Reviewers, and ATR/IEPR Reviewers**

A Technical Review Plan (TRP) describing the level of reviews required for the different decision documents has been prepared for this project. In addition, the TRP

includes a list of planning and engineering models that may be during the project's planning phase. The project's TRP was.

The TRP 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, construction, and OMRR&R phases. The EC outlines four general levels of review: District Quality Control/Quality Assurance (DQC), Agency Technical Review (ATR), Independent External Peer Review (IEPR), and Policy and Legal Compliance Review. In addition to these levels of review and in accordance with EC 1165-2-217, decision documents are also subject to cost engineering review and certification/approval. Guidance on quality assurance for engineering models is contained in ER 1110-2-1150, "Engineering and Design for Civil Works Projects." Planning models must be reviewed and approved pursuant to EC 1105-2-412, Assuring Quality of Planning Models.

Description of the technical reviews required for this study's documents follows:

- *DQC* – All decision documents (including supporting data, analyses, environmental compliance documents, etc.) shall undergo DQC. DQC is an internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the Project Management Plan (PMP). The home district shall manage DQC. Documentation of DQC activities is required and should be in accordance with the Quality Manual of the District and the home Major Subordinate Command (MSC).
- *ATR* – ATR is mandatory for all decision documents (including supporting data, analyses, environmental compliance documents, etc.). The objective of ATR is to ensure consistency with established criteria, guidance, procedures, and policy. The ATR will assess whether the analyses presented are technically correct and comply with published US Army Corps of Engineers (USACE) guidance, and that the document explains the analyses and results in a reasonably clear manner for the public and decision makers. ATR is managed within USACE by a designated Risk Management Organization (RMO) and is conducted by a qualified team from outside the home district that is not involved in the day-to-day production of the project/product. ATR teams will be comprised of senior USACE personnel and may be supplemented by outside experts as appropriate. To assure independence, the leader of the ATR team shall be from outside the home MSC.
- *IEPR* – IEPR Type I is required for decision documents prepared for this project. IEPR is the most independent level of review, and is applied in cases that meet certain criteria where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside of USACE is warranted. A risk-informed decision, as described in EC 1165-2-217, is made as to whether IEPR is appropriate. IEPR panels will consist of independent, recognized experts from outside of the USACE in the appropriate disciplines, representing a balance of areas of expertise suitable for the review being conducted. There are two types of IEPR: Type I is

- generally for decision documents and Type II is generally for implementation products.
- *Policy and Legal Compliance Review* – All decision documents will be reviewed throughout the study process for their compliance with law and policy. Guidance for policy and legal compliance reviews is addressed in Appendix H, ER 1105-2-100. These reviews culminate in determinations that the recommendations in the reports and the supporting analyses and coordination comply with law and policy, and warrant approval or further recommendation to higher authority by the Chief of Engineers. DQC and ATR augment and complement the policy review processes by addressing compliance with pertinent published Army policies, particularly policies on analytical methods and the presentation of findings in decision documents.
  - *Public Reviews* – The public will be afforded opportunities to review and provide public comments for consideration by the project team on all decision documents required for project authorization. Before releasing for public review, the team must obtain approval to release the draft documents.

In performing reviews of technical products, the reviewers are asked to rationalize their comments as being either formal comments or informal comments, and that they use the appropriate tools/methods, as described below, for documenting and transmitting your comments.

Formal comments are those that will likely affect or impact: 1) a project's budget and/or schedule, 2) safety and/or security, or 3) conflict with laws, policy, and/or guidance. These types of comments shall be entered into DrChecks®, which is the mandated system for submitting, tracking, and responding to comments on engineering and design products.

Informal comments, oftentimes considered to be courtesy comments, are those such as grammatical, editorial, and non-critical comments intended to alert the PDT to items or issues that they may want to consider further. These types of comments can be passed along to the PDT by way of marked-up (aka red-lined) documents, or in a separate (not DrChecks®) document. The Comment and Markup feature in Adobe Reader/Acrobat is very handy for this purpose. Informal comments must not be entered in DrChecks®, but must be documented for future reference.

For both categories of comments, it is requested that reviewers refrain from personal preference type comments unless there is a very strong basis for making the suggestion; in which case, the rationale should clearly be stated. For instance, if there is another way to do an analysis, but the way chosen by the PDT member is consistent with Corps guidance and best practices, then this can be provided informally for consideration but should not be a formal comment.

## **8. PROJECT DELIVERY ACQUISITION STRATEGY**

The result of this study will be a PIR and the accompanying EIS. There is no acquisition required to complete this study.

Some contract support may be required to collect data to supplement information already available. In order to facilitate this acquisition existing Jacksonville District Indefinite Delivery Indefinite Quantity (IDIQ) contracts will be utilized. Upon identification of those sources, this section will be updated.

## **9. RISK MANAGEMENT PLAN**

Risk identification should to be based on the complexity involved in operation and management of the authorized components. The team will periodically review changes to assess and mitigate adverse risks.

A risk analysis shall be conducted and will be updated as required to calculate and present the cost and schedule contingencies using the risk analysis processes as mandated by ER 1110-2-1150, "Engineering and Design for Civil Works"; ER 1110-2-1302, "Civil Works Cost Engineering"; and Engineer Technical Letter 1110-2-573, "Construction Cost Estimating Guide for Civil Works." A report will be prepared to summarize the contingency results for both cost and schedule risks for all project features. The study and presentation can include or exclude consideration for operation and maintenance or life cycle costs, depending upon the program or decision document intended for funding. The team will use defined risk-management areas applicable to the project. Identified risks will be periodically reviewed, monitored, and evaluated. If new risks are identified or variable to identified risks, the team will determine impacts and significance of the risks, to include scope, schedule, and cost impacts.

### **9.1. Requirements**

The risk analysis process must follow the USACE Headquarters requirements and the guidance provided by the Cost Engineering Directory of Expertise for Civil Works (Cost Engineering DX). The risk analysis process uses probabilistic cost and schedule risk analysis methods. The risk analysis results are intended to serve several functions, one being the establishment of reasonable contingencies reflective of an 80 percent confidence level to successfully accomplish the project work within that established contingency amount.

Risk analysis results are also intended to provide project leadership with contingency information for scheduling, budgeting, and project control purposes, as well as provide tools to support decision-making and risk management as the project progresses through planning and implementation. To fully recognize its benefits, cost and schedule risk analyses should be considered as an ongoing process conducted concurrent to, and iteratively with, other important project processes such as scope and execution plan development, resource planning, procurement planning, cost estimating, budgeting, and scheduling.

In addition to broadly defined risk analysis standards and recommended practices, the risk analysis is performed to meet the requirements and recommendations of the following documents and sources:

- ER 1110-2-1150, Engineering and Design for Civil Works Projects
- ER 1110-2-1302, Civil Works Cost Engineering

- ETL 1110-2-573, Construction Cost Estimating Guide for Civil Works
- Cost and Schedule Risk Analysis Process guidance prepared by the USACE Cost Engineering DX
- Memorandum from Major General Don T. Riley (U.S. Army Director of Civil Works), 3 Jul 2007
- Engineering and Construction Bulletin issued by James C. Dalton, P.E. (Chief, Engineering and Construction, Directorate of Civil Works), dated September 10, 2007

## 9.2. Risk Register

A risk register can be an effective tool for managing identified risks throughout the project life cycle. The risk register reflects the results of risk factor identification and assessment, risk factor quantification, and contingency analysis. The Risk Register serves as a working document to be revised as the study progresses. Recommended uses of the risk register going forward include:

- Documenting risk mitigation strategies being pursued in response to the identified risks and their assessment in terms of probability and impact.
- Providing project sponsors, stakeholders, and leadership/management with a documented framework from which risk status can be reported in the context of project controls.
- Communicating risk management issues.
- Providing a mechanism for eliciting risk analysis feedback and project control input.
- Identifying risk transfer, elimination, or mitigation actions required for implementation of risk management plans.

## 10. SAFETY AND OCCUPATIONAL HEALTH PLAN

The safety and occupational health plan for the project will be updated during later project phases.

## 11. CHANGE MANAGEMENT PLAN

All changes to the project are subject to the approval levels identified in the CERP Guidance Memorandum (CGM) # 7.0. The project schedule and cost consist of four components: baseline, current approved, forecast, and actual. These components are defined as follows:

- **Baseline:** The Baseline Schedule and Cost Estimate are defined by the approved initial PMP. The baseline remains constant until an updated PMP is approved and is compared with projected and actual schedules and costs.
- **Current Approved:** The Current Approved Schedule and Cost Estimate reflect changes in project scope, schedule, or cost estimates that have been

approved at the appropriate levels. The approval authorities required for a specific change are defined in the CGM and are related to the magnitude of the change. Approvals for some minor changes are within the Project Managers' authority while other more substantive changes might require the approval of the CERP Program Managers.

- **Forecast:** When the Project Managers initially identify changes that impact the current approved schedule and cost estimate, such changes should be reflected in the forecast schedule and cost estimate until they are approved in accordance with CGM procedures.
- **Actual:** The costs and dates of completed milestones will be documented in the Actual Cost and Schedules, respectively.

The PM and PDT are responsible for identifying and justifying the need for changes to the scope, schedule, costs, and for initiating requests for approval of such changes. Any office requesting a change will identify to the PM the anticipated schedule and cost impacts of the requested change. The PM is responsible for proper evaluation, coordination, approval, and managing of project schedule and cost change requests, and accountable for documenting impacts resulting from the change.

### **11.1. Changes during the Design Phase**

Approval of design changes will follow normal USACE procedures for project authorization. Discretionary changes may be initiated by the SFWMD and will be evaluated in regards to the need for the project and once a determination made regarding if the change constitutes or not a betterment, relocation for which the SFWMD is responsible, or for other considerations/requirements necessary for the project's functionality. Appendix E has the required form(s) for change management approval during design phases. From 2013 forward, technical offices will be required to complete the technical change control request (CCR) form in Appendix E.

### **11.2. Changes during the Construction Phase**

Changes during the construction phase can result from a variety of sources. Contract changes shall be held to a minimum in an effort to maintain schedule, scope, and costs under control. Accomplishment by separate, competitively bid contracts shall, in each instance, be explored and shall be used unless it can be clearly shown that the change is required. Construction changes generally fall into mandatory or discretionary change category.

- **Mandatory Changes**—These are unavoidable changes that are required to provide a complete and useable facility. Such changes are caused by unforeseen factors discovered during design (e.g., design oversights/errors or mandatory criteria changes) or construction (e.g., changed site conditions or unavailability of materials). These changes do not include enhancements or improvements that are absolutely necessary for completion of the project; even those justified by improved efficiency of operation, maintainability, function or appearance.



- Discretionary Changes**—These are generally customer requested changes that are not absolutely required to provide a complete and useable facility which meets operational requirements as specified in the contract. This would include any criteria changes that are not mandatory for ongoing projects; or changes that would improve (betterments) the efficiency, maintainability, function, or appearance of the facility. Basically, any change that is not absolutely necessary is considered "discretionary."

Changes to contract requirements arise from field conditions (including differing site conditions), design deficiencies, and requests by the SFWMD. In general, changes arising from differing field conditions and design deficiencies are mandatory and changes requested by the SFWMD are discretionary. For changes requiring clarification and/or resolution, the PDT will make final determination if the changes are considered mandatory or discretionary.

Changes to the construction contract will not be initiated until a Basic Change Document (BCD) has been completed and approved. For mandatory changes, a BCD will be initiated by the Resident Engineer’s Office, or designee, as needed. In addition to obtaining change authorization, the BCD will indicate the need for additional design and/or cost engineering support. Discretionary changes can only be initiated and approved by the PM, in consultation with Program Manager(s).

PDT coordination among USACE and SFWMD shall occur as early as possible and always prior to proceeding with the change, and regardless of the scope, cost, and schedule impacts. The extent of coordination and approval authority for changes is based upon the size and complexity of the change. Appendix E has the required CCR form for approvals of changes made during construction.

**11.3. PMP Updates and Revisions**

Documentation of PMP updates and revisions are required when changes to project scope, schedule, and costs are approved. **Table 5** will track updates and revisions to the original PMP.

**Table 5. PMP updates and revisions.**

Date	Type (update/rev)	Page	Description	Reason for Change
	Update			

**12. COMMUNICATIONS MANAGEMENT PLAN**

The purpose of the Communication Management Plan (CMP) is to ensure proper coordination of information intended for release internally and externally to the USACE. Internal and external communication strategies are essential to facilitate the implementation of the BBCW2 Project. The Jacksonville District uses several internal communication methods to disseminate information and guidance, which

provide either direct or indirect communication as described below. Internal communications are most effective when indirect communications are followed up by direct communications.

Direct communications provide the means to ensure that the information is understood by responding to questions and inviting ideas. BBCW2 Project member meetings ensure direct communication within the PDT for those that participate in these regular meetings (see Appendix A for member list). Other topic(s)-focused project meetings provide opportunities to share project information to participants. The monthly Program Updates and Project Review Board (PRB) meetings provides the District Commander, technical leaders and project managers with an opportunity to discuss project issues and develop resolutions to project problems.

Indirect communications use websites and emails to disseminate project information, guidance, and direction. Process execution process documents are readily accessible to all District personnel through the District Knowledge Management Environment (KME) SharePoint website and share drives. The QMS documents describe the procedures for each process.

### **12.1. PDT Communication Requirements**

The USACE Jacksonville District (CESAJ) and SFWMD are the principal federal and non-federal sponsors for the C&SF in the central and southern Florida region. CESAJ will lead the PDT meetings for the BBCW2 study with support from SFWMD.

In accordance with the National Environmental Policy Act (NEPA), public comment periods and public meetings will also be conducted as part of the planning effort for scoping, presenting the final array of alternatives, and draft report.

To allow public and stakeholder opportunities to participate in project planning and development, scoping meetings, workshops, inter-agency meetings, and other opportunities will be provided.

Sub-teams will be organized as necessary to accomplish the technical tasks required to achieve project objectives and allow collaborative discussion at the detailed technical level. Sub-teams will be open to all PDT members. Sub-teams will set their own meeting schedules to accomplish the required tasks. Each sub-team will report back to the full PDT.

Each PDT member needs to have situational awareness of current events, requirements, activities, opportunities, policies, guidance, and new initiatives that may impact the project positively or negatively. The urgency and importance of the communication determines the best methods for communicating.

Effective communication among PDT members is critical to project's success. This PMP was developed, endorsed, and must be used by PDT members as a guide to deliver their products or services required for the project. Project status reports and the Project Review Board (PRB) provide the means for the District's upper management to be kept informed of project issues, so that their decisions are based

on current information and are communicated to all those involved with the project. However, each PDT member is responsible for keeping his/her management chain informed on project status and progress, particularly of the products and services the respective office is responsible for. Communication required by this plan include schedules, briefings, and project controls as defined below.

#### **12.1.1. Schedules**

These project schedules are required:

- **Project Schedule** – Detailed schedule outlining tasks in a work breakdown structure (WBS). The schedule includes updated start and end dates, baseline dates, predecessors and successors for each task. The Project Manager manages the project plan in coordination with the Project Scheduler. This detailed schedule will be developed once the project is funded.
- **Gantt Chart** – A chart of major phases broken down into milestones for each phase.

#### **12.1.2. Briefings**

These briefings are required:

- **Technical Review Board (TRB)**: Facilitates communication between the SFWMD and the Corps at the 30%, 60%, and 90% design phases of the project to ensure proper coordination between agency engineering staff, and resolve design and engineering related issues.
- **Quarterly Executive Team (QET)**: Provides direction from the chairs to their respective agency staff on issues brought forward for a decision. If items cannot be resolved at a lower level they are raised to the QRB for a decision. There is usually a pre-QRB the week prior to brief SAJ leadership on the issues being presented.
- **Project Review Board (PRB)**: Serves as the corporate governing body of this command in the area of project execution through review of implementation challenges that focuses on providing guidance to the PDT.
- **South Florida Ecosystem Restoration (SFER) Briefing**: Briefs District Command weekly on new developments with projects in the Restoration Branch.
- **Project Delivery Team (PDT) meetings**: Provides the project PDT a forum to present updates, issues, or solutions to ensure the project stays on schedule.
- **Water Resources Advisory Council (WRAC) meetings**: Monthly meetings to provide updates on regional water resources concerns in south Florida. Provides forum to receive feedback on regional interest and effects of projects.

### **12.1.3. Project Controls**

Project controls track and document project progress, issues for resolution, open action items, and changes to the project plan. The Project Manager will closely monitor the following documents and logs in order to manage the schedule, resources, and issues which impact successful project completion.

- Meeting Agendas: Communicates the meeting's purpose, topics, and deliverables during project team, group, or town hall meetings. Agendas allow participants the time to properly prepare for meetings enabling successful and timely meetings.
- Meeting Summaries: Captures the main discussion occurring during the meeting and any action items required after the meeting.
- Monthly Activity Report Status (MARS): Documents schedule status on a monthly basis. Reports associated with the MARS include a 90-day look ahead and a milestone comparison to the current approved baseline schedule. Also included in the MARS are updated notebook topics, that summarize completed activities, current project status, and potential issues that would have an impact on the schedule. The PM coordinates with the Project Scheduler to develop the MARS.
- Monthly Expenditures Reports: Provide status of expenditures as compared to the baseline and overall costs. This document will not be shared outside Corps and SFWMD.
- Action Item Matrix: Provides a centralized point from which to manage project action items. The PM is responsible for updating and managing the action items matrix.

### **12.2. Tribal Government-to-government Consultation**

In order to ensure effective and mutually beneficial relationships with tribal partners, the Jacksonville District will follow the accountable process mandated in Executive Order 13175, Consultation and Coordination with Indian Tribal Governments (November 2000). USACE Tribal Consultation Policy (November 2012) further refines the process.

The Jacksonville District will conduct formal consultation under guidance from the District Tribal Liaison. The Jacksonville District will develop a formal Consultation Plan, appropriate to the project scope, during the initial Consultation meeting with each Tribal Nation. Two sovereign nations exist within the BBCW study area, the Seminole Tribe of Florida (STOF) and the Miccosukee Tribe. The consultation plan will be documented in an MFR following the initial Tribal Consultation meeting with each Tribe.

### **13. VALUE MANAGEMENT PLAN**

A value management plan will be completed, if necessary, after initial review of this PMP.

**14. DATA MANAGEMENT PLAN**

The data management plan for the project will be updated after initial review of this PMP.

**15. CLOSEOUT PLAN**

After approval of the Chief's Report and signing of the ROD by HQUSACE, the CESAJ will close Phase 2 of the BBCW Project. This section will be updated for future project phases.

**APPENDIX A: PDT MEMBERS**

<b>Member</b>	<b>Affiliation</b>	<b>Email</b>	<b>Phone</b>
Marie Huber	CESAJ/PM-EE	<a href="mailto:Marie.L.Huber@usace.army.mil">Marie.L.Huber@usace.army.mil</a>	904-232-1683
Donald Beter	CESAJ/EN-DS	<a href="mailto:Donald.G.Beter@usace.army.mil">Donald.G.Beter@usace.army.mil</a>	904.232-2444
Andrew LoSchiavo	CESAJ/PD-ES	<a href="mailto:Andrew.J.Loschiavo@usace.army.mil">Andrew.J.Loschiavo@usace.army.mil</a>	904.232-2077
Glenn Landers	CESAJ/PD-PW	<a href="mailto:Glenn.B.Landers@usace.army.mil">Glenn.B.Landers@usace.army.mil</a>	904-232-2125
Bradley Foster	CESAJ/PD-ES	<a href="mailto:Bradley.A.Foster@usace.army.mil">Bradley.A.Foster@usace.army.mil</a>	904-232-2110
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**APPENDIX B: PROJECT SCHEDULE**

This table shows the project schedule.

WBS: 480417.01.1 Study Initiation	109.0d	1-Jul-20	7-Dec-20
Study Kick-Off Meeting	1.0d	1-Jul-20	1-Jul-20
Pre-Charrette Data Collection	20.0d	2-Jul-20	30-Jul-20
Develop Report Synopsis	30.0d	2-Jul-20	13-Aug-20
Develop Risk Register	30.0d	2-Jul-20	13-Aug-20
Develop Decision Management Plan (DMP)	30.0d	2-Jul-20	13-Aug-20
Prepare Charrette Read Ahead Material	5.0d	14-Aug-20	20-Aug-20
Submit Charrette Read Ahead Material	0.0d		20-Aug-20
Conduct Planning Charrette (scalable)	5.0d	28-Aug-20	3-Sep-20
Charrette MFR	0.0d		9-Sep-20
Updated Risk Register	0.0d		9-Sep-20
Prepare Notice of Intent (only for EIS)	20.0d	10-Sep-20	7-Oct-20
Publish Notice of Intent (only for EIS)	0.0d		7-Oct-20
Prepare Model Review Plan	30.0d	10-Sep-20	22-Oct-20
Model Review Plan Approval	0.0d		22-Oct-20
Conduct NEPA Scoping/Coordinate with Agencies	40.0d	10-Sep-20	5-Nov-20
Model Certification (if needed)	30.0d	23-Oct-20	7-Dec-20
WBS: 480417.01.2 Existing Conditions	66.0d	10-Sep-20	15-Dec-20
WBS: 480417.01.3 Alternatives	75.0d	15-Dec-20	6-Apr-21
Identify Final Array of Alternatives	30.0d	21-Jan-21	4-Mar-21
Update the Report Synopsis, Risk Register and DMP	5.0d	26-Feb-21	4-Mar-21
Prepare Read Ahead Material for Alternatives Milestone	10.0d	5-Mar-21	18-Mar-21
Submit Read Ahead Material for Alternatives Milestone	0.0d		18-Mar-21
Conduct Alternatives Milestone Meeting	0.0d		1-Apr-21
Alternatives MFR	0.0d		6-Apr-21
WBS: 480417.02 Alternative Evaluation & Analysis	364.3d	18-Mar-21	29-Aug-22
WBS: 480417.02.0 Management Reviews, QA/QC	364.3d	18-Mar-21	29-Aug-22
DQC Alternatives Documentation	0.0d		18-Mar-21
ATR Alternatives Documentation	0.0d		18-Mar-21
Initiate IEPR Contract	0.0d		12-Aug-21
Complete MSC QA/QC of TSP	0.0d		10-Sep-21
DQC of TSP	0.0d		10-Sep-21
IEPR Contract Awarded	0.0d		24-Sep-21
Negotiate IEPR Contract	30.0d	13-Aug-21	24-Sep-21
Division Review of Electronic Policy Review Package	5.0d	15-Nov-21	19-Nov-21
MSC Review Draft Report	0.0d		6-Dec-21
ATR of Draft Report	0.0d		7-Dec-21
IEPR Review	40.0d	9-Dec-21	8-Feb-22
Receive IEPR Comments	0.0d		8-Feb-22
Respond to IEPR Comments	10.0d	8-Feb-22	23-Feb-22
Receive Final IEPR Report	0.0d		16-Mar-22
Cost Certification from Cost DX	0.0d		28-Jul-22
DQC/ATR of Final Report	0.0d		29-Aug-22
Perform ATR	364.3d	19-Mar-21	29-Aug-22
WBS: 480417.02.1 Detailed Evaluation of Alternatives	90.0d	7-Apr-21	12-Aug-21
Analysis of Final Array of Milestones (Insert more detail based on project need)	90.0d	7-Apr-21	12-Aug-21
WBS: 480417.02.2 Tentative Selected Plan	152.3d	11-Aug-21	23-Mar-22
Update Report Synopsis, Risk Register, DMP and Report	20.0d	13-Aug-21	10-Sep-21
Cost Schedule Risk Analysis	22.0d	11-Aug-21	10-Sep-21
Read Ahead Material for Tentatively Selected Plan	10.0d	13-Sep-21	24-Sep-21
Submit TSP Milestone	0.0d		24-Sep-21
Conduct TSP Milestone Meeting	0.0d		8-Oct-21

TSP MFR	0.0d		14-Oct-21
Update Report Synopsis, Risk Register, DMP and Report Consistent w/ TSP	5.0d	15-Oct-21	21-Oct-21
Prepare Draft Report for Concurrent Review	20.0d	15-Oct-21	12-Nov-21
Complete Supporting Docs for Policy Review (optional or Dissolve)	20.0d	15-Oct-21	12-Nov-21
Submit Draft Report to HQ	0.0d		19-Nov-21
Public Review Period Start	0.0d		6-Dec-21
NOA Filed in Federal Register	0.0d		6-Dec-21
Prepare NOA	10.0d	22-Nov-21	6-Dec-21
Policy Review	22.0d	7-Dec-21	10-Jan-22
Public Draft Report and NEPA Comment Period	32.0d	7-Dec-21	25-Jan-22
Develop Public Response Matrix	10.0d	25-Jan-22	8-Feb-22
Prepare Read Ahead for Agency Decision Milestone	5.0d	16-Mar-22	23-Mar-22
WBS: 480417.03 Feasibility Level Analysis	251.3d	13-Sep-21	13-Sep-22
ASA Policy Exception Letter Signed for LPP (If necessary)	1.0d	13-Sep-21	13-Sep-21
Submit Read Ahead Material for Agency Decision Milestone	0.0d		23-Mar-22
Agency Decision Milestone	0.0d		6-Apr-22
Agency Decision MFR	0.0d		11-Apr-22
HQ Finalize Comments and Project Guidance Memo	10.0d	11-Apr-22	25-Apr-22
Additional Engineering, Economic, Real Estate and Environmental Analysis (if needed)	66.0d	25-Apr-22	28-Jul-22
Complete Draft of Final FR/EA/EIS (ROD)	22.0d	28-Jul-22	29-Aug-22
Final Report Complete	0.0d		29-Aug-22
Submit Final Report (Division Engineer's Notice)	0.0d		29-Aug-22
Prepare CWRB Package	10.0d	29-Aug-22	13-Sep-22
WBS: 480417.04 Chief's Report Milestone	204.1d	12-Oct-22	4-Aug-23
Conduct CWRB	0.0d		12-Oct-22
Prepare Package for State and Agency Review	10.0d	12-Oct-22	26-Oct-22
State and Agency Review (Final FR/EA/EIS and Draft Chief's Report)	22.0d	26-Oct-22	29-Nov-22
Response Letters to S&A comments (If required)	10.0d	29-Nov-22	13-Dec-22
OWPR & RIT Coordination of Final Report Packet & Chief's Report	22.0d	13-Dec-22	17-Jan-23
Chief Signs Report of the Chief of Engineers	0.0d		31-Jan-23
ASA(CW) Signs Record of Decision (ROD) (before goes to Congress)	0.0d		14-Feb-23
Chief's Report Forwarded to ASA(CW) (RIT TASK)	10.0d	31-Jan-23	14-Feb-23
Feasibility Report Transmittal to Congress	120.0d	14-Feb-23	4-Aug-23
Feasibility Report to Congress	0.0d		4-Aug-23



**APPENDIX C: CERTIFIED PROJECT COST ESTIMATE**

TBD

**APPENDIX D: PUBLIC INVOLVEMENT PLAN**

Public outreach is a process by which interested and affected individuals, organizations, agencies, and governmental entities are informed of a project and its goals, and have the opportunity to participate in the decision-making process. Public outreach supports the exchange of ideas and information among individuals and groups, which is critical to resolving the challenges involved in implementing CERP. Outreach work will be conducted with the input and involvement of both the USACE and SFWMD Outreach Project Delivery Team members. In addition to relying upon standard methods of communication and involvement, the outreach activities for the Biscayne Coastal Wetlands Project will include activities aimed at informing and engaging minorities and other traditionally under-represented communities, socially and economically disadvantaged persons, including those with a limited ability to communicate in English.