

REVIEW PLAN

Banana River Estuary Restoration Project City of Cape Canaveral, Florida

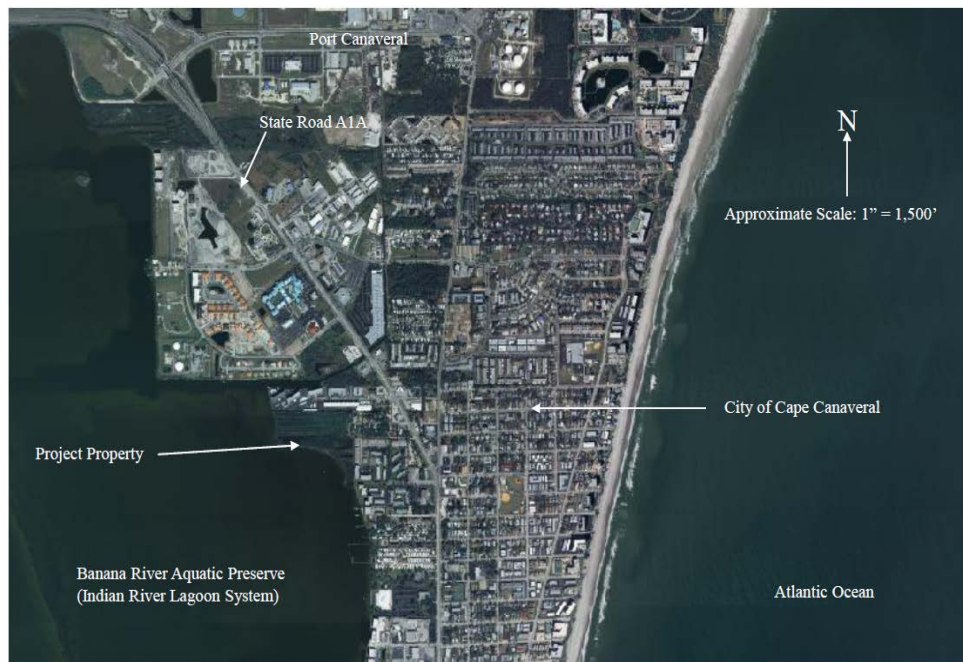
Estuary Restoration Act of 2000 Estuary Habitat Restoration Program

Jacksonville District

Project Number: 147075

MSC, South Atlantic Division Approval Date: April 2013

Last Revision Date: April 2013



US Army Corps
of Engineers ®

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City of Cape Canaveral, Florida

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1. PURPOSE AND REQUIREMENTS

- a. Purpose.** The Banana River Estuary Restoration Project, City of Cape Canaveral, Florida will be executed via use of a Project Partnership Agreement. A Vertical Team review will be completed on the Project Partnership Agreement package which may include but is not limited to: 1) Project Partnership Agreement and the supporting Letter Report; 2) Project Management Plan with work and payment schedules developed and agreed to by the U.S. Army Corps of Engineers (USACE) Jacksonville District and Local Sponsor; 3) Estuary Habitat Restoration Program Project Partnership Agreement Standard Terms and Conditions; 4) Certifications and Representations; 5) Monitoring Plan; 6) a Site-Specific Operations and Maintenance Manual; and 7) Documentation of Required Real Estate. This Review Plan defines the scope and level of peer review for the Monitoring Plan, the Operations and Maintenance Manual, the Documentation of Required Real Estate, and any Plans and Specifications developed for the Banana River Estuary Restoration Project, City of Cape Canaveral, Florida.
- b. Applicability.** The documents covered by this review plan are “other work products” as defined by EC 1165-2-214. The documents are associated with the Project Partnership Agreement package and the final design and construction phase of the project. The documents covered by this Review Plan are the Monitoring Plan, the Operations and Maintenance Manual, the Documentation of Required Real Estate and any Plans and Specifications.
- c. References.**
- (1) Engineering Circular (EC) 1165-2-214, Civil Works Review, 15 Dec. 2012
 - (2) EC 1105-2-412, Assuring Quality of Planning Models, 31 Mar 2011
 - (3) Engineering Regulation (ER) 1110-1-12, Quality Management, 21 Jul 2006

2. PROJECT INFORMATION

- a. Background.** The City of Cape Canaveral submitted an application for funding for this project through the Estuary Habitat Restoration Program (EHRP) in July 2006. The City received formal approval of the project from the Department of the Army - Office of the Assistant Secretary of Civil Works in April 2007. City staff and USACE conducted several telephone conferences and conducted a site visit in March 2008 to investigate restoration options. Upon review of the site visit results, a viable restoration option for the project was developed.
- b. Study/Project Description.** This project falls under the under the Estuary Habitat Restoration Program (EHRP).

The project site is located at the western end of Long Point Road along the shoreline of the Banana River Aquatic Preserve within the City limits. The existing natural area consists of approximately 7.9 acres including 4.8 acres of forested wetlands and 3.1 acres of mangrove swamp. The project area is affected by tidal changes in the Banana River Aquatic Preserve primarily through drainage/mosquito control ditches, which are present in the western half of the property. Wind also plays a significant role in the tidal flushing of the drainage/mosquito control ditches.



Figure 1. Banana River Project Site

The proposed restoration plan includes the eradication of non-native plant species, which have overgrown both the forested wetlands and mangrove swamp habitats. These areas of the property are approximately 70% covered with non-native plant species (primarily Brazilian pepper trees). These non-native plant species will continue to displace native plant species on the property if eradication activities are not performed (i.e., the percentage of natural habitat on the property will continue to decline). Non-native plant species may also spread to the adjacent mangrove/tidal swamp habitat located to the south if not eradicated.



Figure 2. Banana River Habitat Acreage

The property will be accessed through the end of Long Point Road as well as the condominium parking lot located to the north of the site. Heavy equipment will be mobilized and will clear-cut the entire property of trees and shrubs. All vegetative debris will be mulched for spreading onsite--no offsite disposal of vegetation will be required. City staff (and local volunteers) will treat the remaining stumps of all non-native plant species with commercially available herbicide (Roundup and/or Pathfinder). It is anticipated that two herbicide treatments will be required to completely eradicate the nonnative plant species. Upon completion of the treatment activities, slash pines will be planted to restore the property to a coastal slash pine habitat. Additional red mangroves (*Rhizophora mangle*) will also be planted along the drainage/mosquito control ditches to improve the mangrove swamp habitat.

- c. **Factors Affecting the Scope and Level of Review.** This section discusses the factors affecting the risk informed decisions on the appropriate scope and level of review. The discussion is intended to be detailed enough to assess the level and focus of review and support the PDT, PCX, and vertical team decisions on the appropriate level of review and types of expertise represented on the various review teams. Pertinent areas of importance, from EC 1165-2-214, are presented as bullets that are then addressed for this specific project:

- *If parts of the study will likely be challenging;*
The project will not face any challenges other than those routine challenges involved in a very small non-controversial project. The USACE analysis will not require the development of any new models, methods, or innovative design. There are no socio-economic concerns as the analysis will be limited to those corrective actions within an existing project.

- *A preliminary assessment of where the project risks are likely to occur and what the magnitude of those risks might be:* Because the project consists of removal non native plant species and planting native plants there is no significant project risk.
 - *If the project will likely be justified by life safety or if the project likely involves significant threat to human life/safety assurance – the discussion of life safety should include the assessment of the home District Chief of Engineering on whether there is a significant threat to human life associated with the project:* Because the project consist of removal non native plan species and planting native plants the project will present no significant threat to human life/safety.
 - *If there is a request by the Governor of an affected state for a peer review by independent experts: There has not been, nor is there expected to be, a request by the Governor of an affected state for a peer review by independent experts.*
There is no request by the Governor of an affected state for a peer review by independent experts
 - *If the project/study is likely to involve significant public dispute as to the size, nature, or effects of the project:* The project is not expected to involve significant public dispute.
 - *If the project/study is likely to involve significant public dispute as to the economic or environmental cost or benefit of the project:* The project is not likely to involve significant public dispute as to the economic or environmental cost or benefit of the project.
 - *If the information in the decision document or anticipated project design is likely to be based on novel methods, involve the use of innovative materials or techniques, present complex challenges for interpretation, contain precedent-setting methods or models, or present conclusions that are likely to change prevailing practices:* The information in the decision document or anticipated project design is not likely to be based on novel methods, involve the use of innovative materials or techniques, present complex challenges for interpretation, contain precedent-setting methods or models, or present conclusions that are likely to change prevailing practices.
 - *If the project design is anticipated to require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design construction schedule:* The project design is not anticipated to require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design construction schedule.
- d. In-Kind Contributions.** Products and analyses provided by non-Federal sponsors as in-kind services are subject to peer review, similar to any products developed by USACE. At this time, no in-kind products will be developed by the City.
- e. Requirements.** This Review Plan was developed in accordance with EC 1165-2-214, which 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.

1. District Quality Control/Quality Assurance (DQC). All documents covered by this Review Plan shall undergo DQC as provided in EC 1165-2-214, paragraph 8. 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). For this project, the USACE Jacksonville District Planning will be responsible for DQC efforts.

Duties of the DQC team include the following:

- Reviewing report contents for compliance with established principles and procedures, using clearly justified and valid assumptions.
- Reviewing plans and specifications and maintenance manual to ensure they are correct and reasonable.
- Providing the PDT leader with documentation of comments, issues, and decisions arising out of the DQC review. Comments and resolutions will be collected by the Project Manager and documented in the project file. Corrections will be made to the reviewed documents before construction begins.

2. Agency Technical Review (ATR).

a. The project is limited in scope and consists of removing non-native plant species and replacing them with native species. The Estuary Habitat Restoration Program Project Letter Report includes exotic vegetation removal and associated design and monitoring, with a cost estimate of \$190,000, and is very low risk. Therefore, no ATR is proposed for this project.

The following questions were explicitly considered:

(1) Does it include any design (structural, mechanical, hydraulic, etc.)? No.

(2) Does it evaluate alternatives? No detailed plan formulation or alternative development was conducted. Informal discussions resulted in a viable option being identified.

(3) Does it include a recommendation? The option identified is the recommendation.

(4) Does it have a formal cost estimate? No MCACES was developed. Only a rough order of magnitude cost estimate was developed.

(5) Does it have or will it require a NEPA document? No. Discussions with regulatory and permitting agencies indicated that an EA would not be required.

(6) Does it impact a structure or feature of a structure whose performance involves potential life safety risks? No.

(7) What are the consequences of non-performance? Non native species will continue to grow and degrade the habitat.

(8) Does it support a significant investment of public monies? No. The estimated cost is \$190,000.

(9) Does it support a budget request? No. Project is funded through the existing Estuary Habitat Restoration Program.

(10) Does it change the operation of the project? Not Applicable. Project only involves removal of non native invasive plants and replacing them with native plant species.

(11) Does it involve ground disturbances? The project involves only the removal of non native invasive plants and replacing them with native plant species.

(12) Does it affect any special features, such as cultural resources, historic properties, survey markers, etc, that should be protected or avoided? Discussions with the regulatory agencies indicated that EA or EIS is not required.

(13) Does it involve activities that trigger regulatory permitting such as Section 404 or stormwater/NPDES related actions? Yes. The non-Federal sponsor will be required to get a 404 permit.

(14) Does it involve activities that could potentially generate hazardous wastes and/or disposal of materials such as lead based paints or asbestos? No.

(15) Does it reference use of or reliance on manufacturers' engineers and specifications for items such as prefabricated buildings, playground equipment, etc? No.

(16) Does it reference reliance on local authorities for inspection/certification of utility systems like wastewater, stormwater, electrical, etc? No.

(17) Is there or is there expected to be any controversy surrounding the Federal action associated with the work product? No controversy is expected.

b. ATR Recommendation - EC 1165-2-214 directs the team to make a risk informed decision regarding ATR for other work products. Based on the scope of this effort, the above questions and the answers to the items in paragraph 3.c above, the PDT's risk informed decision is that ATR is not needed for the documents covered by this Review Plan.

3. Independent External Peer Review Type I (IEPR). This Estuary Habitat Restoration Program Project Letter Report and associated design and monitoring, size – 7.9 acres, cost - \$190,000, are considered to be very low risk. The project is limited in scope and consists of removing non-native plant species and replacing them with native species, and the project does not trigger any of the factors that would require and IEPR review and based on the discussion above would not significantly benefit from a Type I IEPR. Therefore, an IEPR review is not recommended for the project documents.

4. Type II IEPR. Type II IEPR or Safety Assurance Reviews (SAR), are managed outside the USACE and are conducted on design and construction activities for hurricane, storm, and flood risk management projects or other projects where existing and potential hazards pose a significant

threat to human life. Type II IEPR panels will conduct reviews of the design and construction activities prior to initiation of physical construction and, until construction activities are completed, periodically thereafter on a regular schedule. The reviews shall consider the adequacy, appropriateness, and acceptability of the design and construction activities in assuring public health safety and welfare.

The District Chief of Engineering, as the Engineer-In-Responsible-Charge, does not recommend a Type II IEPR Safety Assurance Review for this project. The project purpose project does not have potential hazards that pose a significant threat to human life. Innovative materials or novel engineering methods will not be used. Redundancy, resiliency, or robustness is not required for design. Also, the project has no unique construction sequencing, or a reduced or overlapping design construction schedule. Therefore, a Type II IEPR of plans and specifications will not be undertaken. If the project scope is changed, this determination will be reevaluated.

5. Policy and Legal Compliance Review. Project documents will be reviewed for their compliance with applicable law and policy.

6. Cost Engineering Review and Certification. There are no decision documents requiring cost review and/or Cost Certification.

7. Model Certification/Approval. EC 1105-2-412 mandates the use of certified or approved models for all planning activities. This estuary habitat restoration project does not require any modeling.

3. PUBLIC PARTICIPATION

The Florida Department of Environmental Protection (FDEP), the Florida Fish and Wildlife Conservation Commission and the St. Johns River Water Management District (SJRWMD) support this ecosystem restoration project. Each of these agencies will be contacted prior to project initiation to determine permit requirements.

4. REVIEW PLAN APPROVAL AND UPDATES

The South Atlantic Division Commander is responsible for approving this Review Plan. The Review Plan is a living document and may change as the study progresses. The Jacksonville District Project Manager is responsible for keeping the Review Plan up to date. After approval by SAD, minor changes to the Review Plan will be documented in Attachment 2 of this plan. Significant changes to the Review Plan (such as changes to the scope and/or level of review) will be re-approved by SAD following the process used for initially approving the plan. The latest version of the Review Plan will be posted on the home district's webpage.

5. REVIEW PLAN POINTS OF CONTACT

Public questions and/or comments on this review plan can be directed to the following points of contact:

- Jacksonville District Project Manager, 904-232-1048
- South Atlantic Division Point of Contact, 404-562-5225

ATTACHMENT 1: TEAM ROSTERS

Team Rosters intentionally removed.

ATTACHMENT 2: REVIEW PLAN REVISIONS

Revision Date	Description of Change	Page / Paragraph Number