

**Estuary Restoration Act of 2000**

**Estuary Habitat Restoration Program**

**REVIEW PLAN**

**Deadman's Island Estuary Restoration Project  
Gulf Breeze, Santa Rosa County, Florida**

**Mobile District**



**South Atlantic Division Approval Date: July 20, 2011**

**Last Revision Date: July 20, 2011**



**US Army Corps  
of Engineers®**

# Deadman’s Island Estuary Restoration Project

## REVIEW PLAN

The Estuary Habitat Restoration Program (EHRP) is authorized by the Estuary Restoration Act of 2000, Title I of PL 106-457 of the Estuaries and Clean Waters Act of 2000, as amended(33 U.S.C. 2903)

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## 1. PURPOSE AND REQUIREMENTS

- a. Purpose.** This review plan defines the scope and level of peer review for the Deadman's Island Estuary Restoration Project, Santa Rosa County, Florida. A HQ review needs to be completed on the Cooperative Agreement Package which includes: 1) Cooperative Agreement, 2) Approved Proposal, 3) Project Management Plan with work and payment schedules developed and agreed to by the U.S. Army Corps of Engineers (USACE) Mobile District and Local Sponsor, 4) Estuary Habitat Restoration Program Cooperative Agreement Standard Terms and Conditions, 5) Certifications and Representations; 6) Monitoring Plan, 7) a Site Specific Operations and Maintenance Manual, and 8) Documentation of Required Real Estate.

This is a small federal grant/cost shared project that falls under the Estuary Restoration Act (ERA). The purpose of the ERA, as amended, is to promote the restoration of estuary habitat; to develop and implement a national estuary habitat restoration strategy for creating and maintaining effective partnerships within the Federal government and with the private sector; to provide Federal assistance for and promote efficient financing of estuary habitat restoration projects; and to develop and enhance monitoring, data sharing, and research capabilities.

The proposed action at Deadman's Island, City of Gulf Breeze, Florida is a project under the Estuary Habitat Restoration Program (EHRP), which is authorized by the Estuary Restoration Act of 2000, Title I of PL 106-457 of the Estuaries and Clean Waters Act of 2000, as amended (33 U.S.C. 2903). The Estuary Restoration Act authorizes the Secretary of the Army to carry out estuary habitat restoration projects and establishes the Estuary Habitat Restoration Council (Council), comprised of the USACE, Department of the Interior (acting through the U.S. Fish and Wildlife Service), National Oceanic and Atmospheric Administration (NOAA), Environmental Protection Agency (EPA), and Department of Agriculture (DOA). The USACE or other agencies represented on the Council that have available funds may fund projects the Army approves. Costs of projects funded under the ERA must be shared with non-Federal parties. District offices, subject to HQ USACE and Major Subordinate Command (MSC) oversight, are responsible for carrying out approved projects funded by the USACE in cooperation with non-Federal interests.

- b. Applicability.** This review plan does not cover decision documents or implementation products as defined by EC 1165-2-209. Therefore the documents covered by this review plan are "other work products" as defined by EC 1165-2-209. It is a review plan for documents associated with the Cooperative Agreement package and the final design and construction phase of the project. The documents associated with the Cooperative Agreement have been edited, reviewed and approved by the District Counsel. The construction documents submitted by the local sponsor have been reviewed, commented on, edited and approved by the Mobile District.

**c. References**

- (1) Engineering Circular (EC) 1165-2-209, Civil Works Review Policy, 31 Jan 2010
- (2) EC 1105-2-412, Assuring Quality of Planning Models, 14 May 2010
- (3) Engineering Regulation (ER) 1110-1-12, Quality Management, 30 Sep 2006
- (4) Implementation Guidance for the Estuary Habitat Restoration Program (Cooperative Agreement), May 2010

**d. Requirements.** This Review Plan was developed in accordance with EC 1165-2-209, 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 major documents associated with this project (Project Management Plan, Monitoring Plan, O&M Manual, Plans and Specifications, etc.) shall undergo DQC as provided in EC 1165-2-209, 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 Mobile District Planning and Environmental Division Coastal Team Leader will be responsible for DQC efforts. However, project plans and specifications developed by the Architect/Engineering firm will undergo DQC by Engineering Division.

The PDT review team will be responsible for performing a technical review of the plans and specifications, cost estimates, real estate documents, and environmental compliance. The DQC review will be completed before each phase of the construction. 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 specification 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). The implementation guidance for the Estuary Habitat Restoration Program (reference c (4)) clarifies that the Risk Informed Decision process is applied, as appropriate to determine if Agency Technical Review is appropriate. After applying this process, it was determined that an ATR was not appropriate or necessary for this project. This project was designed by an environmental consultant and engineering firm hired by the local sponsor outside USACE. A technical review of the project was conducted by a qualified team within the Mobile District. This review team consisted of personnel from Real Estate, Cost Engineering, Planning and Environmental, and Coastal Engineering. Since this is a relatively simple project involving pile driving, a small amount of dredging, sand dune construction and planting of shoreline and aquatic vegetation, further technical review outside of the District is not necessary.
- (3) Independent External Peer Review (IEPR). IEPR may be required for decision documents under certain circumstances. There are two types of IEPR: Type I is generally for decision documents and Type II is generally for implementation products. A Type I IEPR is not required because this review plan does not cover any decisions documents. A Type II IEPR is not required because the project does not involve a significant threat to human life/safety assurance. This determination is based on the types of documents to be reviewed, the

EHRP implementation guidance, and conclusion that all of the following specific criteria are met for this project:

- The project does not involve a significant threat to human life/safety assurance;
- The total project cost is less than \$45 million;
- There is no request by the Governor of an affected state for a peer review by independent experts;
- The project does not require an Environmental Impact Statement (EIS),
- The project is not likely to have significant economic, environmental, and/or social effects to the Nation;
- The project/study is not likely to have significant interagency interest;
- The project/study is not likely highly controversial;
- The decision document is not likely to contain influential scientific information or be a highly influential scientific project;
- The information in the decision document or proposed 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; and
- The project has not been deemed by the USACE Director of Civil Works or Chief of Engineers to be controversial in nature.

This project is a relatively small estuary restoration project. It has been reviewed by local federal and state resource agencies and gone through a public review process during the permitting phase over the past two years. There have not been any significant public disputes over the size, nature, or environmental effects or benefits of the project. All questions and concerns have been thoroughly addressed and all outstanding issues have been resolved. Therefore, neither a Type I IEPR is nor a Type II IEPR is required for the project.

- (4) Policy and Legal Compliance Review. Project documents will be reviewed for their compliance with applicable law and policy.
- (5) Cost Engineering Review and Certification. There are no decision documents requiring cost review. The basic material, labor and construction costs for this project were reviewed and certified by the Mobile District Cost Estimator Section.
- (6) Model Certification/Approval. EC 1105-2-412 mandates the use of certified or approved models for all planning activities to ensure the models are technically and theoretically sound, compliant with USACE policy, computationally accurate, and based on reasonable assumptions. This estuary habitat restoration project does not require any modeling.

## **2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION**

The RMO is responsible for managing the overall peer review effort described in this review plan. The RMO for EHRP projects is the South Atlantic Division (SAD). SAD will coordinate and approve the review plan. The Mobile District will post the approved review plan on its public website. A copy of the

approved review plan (and any updates) will be provided to the National Ecosystem Planning Center of Expertise (ECO-PCX) for its records.

### 3. STUDY INFORMATION

- a. **Background.** In 2002, the City of Gulf Breeze, Florida requested that the USACE, Mobile District investigate the degrading aquatic ecosystem in the vicinity of Deadman's Island in Pensacola Bay, under the authority of Section 206 (Aquatic Ecosystem Restoration) of the Water Resources Development Act (WRDA) of 1996, as amended.

Under the Continuing Authorities Program (CAP), the USACE Mobile District received some limited funding and established a study team to begin working on the project early in 2002. The study team consisted of District members from Planning, Engineering, Hydrology and Hydraulics, Environmental and Office of Counsel. The purpose of the study was to determine how to best restore and protect the aquatic and shoreline ecosystem and to reduce the severe erosion. A basic concept for the restoration was outlined by the team that consisted of constructing an artificial reef and restoring emergent tidal salt marsh. A Section 206 Environmental Planning and Design Analysis was completed on the project. A draft Environmental Assessment (EA) was written and a Public Notice was published in September 2003. The Joint Corps/ Florida Department of Environmental Protection (DEP) Permit Application for the project was submitted on October 10, 2003. Shortly after that submission, there was a disagreement between the Florida Department of Environmental Protection (FDEP) and the USACE Mobile District on sovereign submerged lands. The issue could not be resolved. The Mobile District withdrew the permit application and ceased working on the project.

The City of Gulf Breeze was able to revive the restoration project and begin the process of restoring Deadman's Island through a series of grants totaling approximately \$298,000 from NOAA, EPA (under its Five Star Restoration Program), USFWS, and the Southeast Aquatic Resources Partnership (SARP). Once the grant money became available, the city hired an environmental consultant in 2007. Using these funds, the consultant has been able to map, sample, study, design a restoration plan, obtain the necessary environmental permits and coordinate the construction of a portion of the breakwater.

- b. **Study/Project Description.** The City of Gulf Breeze provided a Letter of Intent dated May 7, 2009 to participate in the Deadman's Island Estuary Restoration Project. The letter stated that they had adequate personnel to meet its obligations, maintenance, replacement, repair and rehabilitation of the project. They stated that they had adequate funding and support through private, State and Federal level grants (including amounts applied for and currently granted), local donations and City reserves. In 2010, HQ USACE agreed to provide funding to the City of Gulf Breeze in the form of a grant to complete the restoration project.

The Deadman's Island Estuary Restoration Project is located at 30.3685°N, 87.1868°W (WGS84) in tidal waters of Pensacola Bay near the U.S. Highway 98 bridge on the north side of the City of Gulf Breeze in Santa Rosa County, Florida. The site is in the City of Gulf Breeze, near the mouth of Pensacola Bay about 16 miles from the Alabama-Florida state line. The City of Pensacola, Florida is about 4 miles north of the project site. Pensacola Bay is located in the western portion of the Florida panhandle.



Figure 1. Deadman’s Island Project Site

The project is designed to enhance the estuary habitat in the area known as Deadman's Island located in the City of Gulf Breeze, FL. There has been a significant loss of the natural shoreline and salt marsh in this area from increased erosion due to excessive wave energy and hurricane impacts. The proposed restoration project will utilize the offshore placement of 1470 circular shaped artificial reef structures (ecodiscs) and 292 pilings, along approximately 1,240 linear feet of shoreline to reduce wave energy, prevent erosion and create a favorable habitat for sea grass restoration. Approximately 1.04 acres of shoreline will be replanted with emergent vegetation and 3 acres of Sovereign submerged lands will be replanted with aquatic vegetation. Upland dune restoration will occur in a 0.046 acre area. The artificial reef structures would be placed on existing open-water bay bottom along with emergent salt marsh and coastal dune vegetation where no such vegetation currently exists. Additional work includes placing approximately 16,000 cubic yards of dredged material from a nearby clean sandy stockpile with a hydraulic dredge to create a small island and salt marsh habitat for shore birds. An incidental benefit of this project would also be to provide protection to the numerous cultural resources artifacts identified at the site where many are currently exposed to the elements.

The restoration project is expected to enhance estuarine habitat, estuarine emergent vegetation, submerged aquatic vegetation habitat, estuarine water column, and sandy substrates in the vicinity

of the project site. The project has the potential to increase the productivity and diversity of flora and fauna indigenous to the Florida area as well as stabilize the existing shoreline. Studies have shown that tidal marsh provides the primary source of food or nutrients used by estuarine animals. Over time, mature salt marsh and expanded seagrass beds would serve as nursery and feeding grounds for many important species of fish and invertebrates, such as shrimp and crabs.

The estimated cost of the project is \$1,707,186.

- c. Factors Affecting the Scope and Level of Review.** The Deadman's Island Estuary Restoration Project site is adjacent to a heavily developed coastal residential area where most of the land is privately owned. There is no public access from the landward side of the project. Access to the public site is by private landowner permission only or by boat from a nearby public boat launch site. An EA was written by the USACE Mobile District in 2003. A baseline study of the area was completed by the local sponsor in 2008 and 2009. After a National Environmental Policy Act (NEPA) review, Section 404 permits were issued for each of the major construction aspects of the project. A portion of reef/breakwater structure was constructed by the local sponsor in 2009. Most construction materials for the next phase (breakwater) have been purchased, stockpiled and are ready for installation. The majority of the environmental clearance issues are resolved except for a permit modification to change the structure design of the breakwater. The goal is to resume construction during the summer of 2011 and complete the remaining portion of the breakwater. The overall plan is to construct the remaining phases of the project over the next three years and conduct site monitoring for the 5 years after construction of the remaining portion of the breakwater, which is anticipated to be completed in fall 2011.

The project was designed by the local sponsor's consultant and a local engineering firm. The local sponsor is ready to begin construction on the next phase of the project and is waiting on project funds from USACE. FDEP and USACE Section 404 permits have been issued for this project. Slight revisions to some of the permits are required due to a design change but they are near completion. All real estate issues have been resolved.

The project is not likely to have significant economic, environmental, or social effects to the Nation or involve a significant threat to human life/safety. The project is an estuary habitat restoration project consisting of breakwater/reef construction, erosion control and shoreline restoration, wetland creation, seagrass bed expansion, and sand dune creation/restoration. The project is designed to enhance the biological productivity of the area. The project will also provide educational and research opportunities. The project is not likely to have significant interagency interest, be highly controversial, contain influential scientific information or be a highly influential scientific assessment due to the relatively small footprint of the project (16 acres). The information in the Project Management Plan or proposed project design is not based on novel methods, nor does it 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.

- 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.



#### **4. PUBLIC PARTICIPATION**

**State and Federal resource** agencies have been actively involved in this project for the last several years and are currently involved in resolving final permit issues. Agencies with regulatory review responsibilities have been contacted for coordination as required by applicable laws and procedures. The public has had the opportunity to comment on the project through the public notice process and notifications in the local news media. Many volunteers have already participated in working on the project.

The Review Plan will be made accessible to the public through the Mobile District website link <http://www.sam.usace.army.mil/>. Public review of the review plan can begin after it is reviewed and approved by SAD and published by the Mobile District. Comments made by the public will be available to the review team.

#### **5. REVIEW PLAN APPROVAL AND UPDATES**

SAD is responsible for approving this review plan. The review plan is a living document and may change as the study progresses. The Mobile 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 3 of this plan. Significant changes to the review plan (such as changes to the scope and/or level of review) should 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.

#### **6. REVIEW PLAN POINTS OF CONTACT**

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

- Project Manager, 251-690-2023
- South Atlantic Division Point of Contact, 404-562-5229

**ATTACHMENT 1: TEAM ROSTERS**

<b>TABLE 1 DISTRICT REVIEW TEAM/PROJECT DELIVERY TEAM</b>			
<b>RESOURCE NAME</b>	<b>RESOURCE CODE</b>	<b>LEAD TEAM MEMBERS</b>	<b>PHONE NUMBER</b>
Project Manager/Environmental	CESAM-PD-EC		
Grants Officer	CESAM-CT		
Coastal Engineer	CESAM-EN		
Legal Counsel	CESAM-OC		
Cost Engineer	CESAM-EN-E		
Real Estate Planning	CESAM-RE-P		

**ATTACHMENT 2: REVIEW PLAN MINOR REVISIONS**

<b>Revision Date</b>	<b>Description of Change</b>	<b>Page / Paragraph Number</b>

**ATTACHMENT 3: ACRONYMS AND ABBREVIATIONS**

<b><u>Term</u></b>	<b><u>Definition</u></b>	<b><u>Term</u></b>	<b><u>Definition</u></b>
ATR	Agency Technical Review	MSC	Major Subordinate Command
CAP	Continuing Authorities Program	NEPA	National Environmental Policy Act
DQC	District Quality Control/Quality Assurance	OMRR&R	Operation, Maintenance, Repair, Replacement and Rehabilitation
DX	Directory of Expertise	PCX	Planning Center of Expertise/Independent Technical Review
EA	Environmental Assessment	PDT	Project Delivery Team
EC	Engineer Circular	PMP	Project Management Plan
ECO-PCX	Ecosystem Planning Center of Expertise	RMO	Review Management Organization
EHRP	Estuary Habitat Restoration Program	RP	Review Plan
EIS	Environmental Impact Statement	SAD	South Atlantic Division
ER	Engineering Regulation	SAR	Safety Assurance Review
HQ USACE	Headquarters, U.S. Army Corps of Engineers	SARP	Southeast Aquatic Resources Partnership
IEPR	Independent External Peer Review	SIAM	Sedimentation Impact Analysis
ITR	Independent Technical Review	USACE	U.S. Army Corps of Engineers