REVIEW PLAN

MISSISSIPPI COASTAL IMPROVEMENTS PROGRAM

COAST-WIDE BEACH AND DUNE RESTORATION

P2 # 506104

HANCOCK COUNTY, MISSISSIPPI

U.S. Army Corps of Engineers

Mobile District

South Atlantic Division

1 December 2022

US Army Corps
of Engineers
Mobile District

Review Plan for Coast-wide Beach and Dune Ecosystem Restoration, Hancock County, Mississippi Project Implementation Documents

Refer to ER 1165-3-217, *Civil Works Review Policy*, 1 May 2021, regarding the requirements for executing this plan.

1. **Date:** 1 December 2022

2. **Review plan revision, if applicable:** N/A

3. **Project name:** Coast-wide Beach and Dune Ecosystem Restoration, Hancock County, Mississippi Project

4. **Project location:** Hancock County, Mississippi

5. **Project P2 number:** 506104

6. **Review Management Organization (RMO):** South Atlantic Division

7. **Review plan POCs:**
   a. **District:** Engineering Technical Lead, 251-690-2484
   b. **SAD:** Implementation Quality Manager, 404-562-5210

8. **Expected in-kind contributions/services to be provided by the non-Federal sponsor:** None

9. **Target construction contract award date(s):** October 2025

10. **Estimated construction contract value(s) (range):** $15M - $25M

11. **Project description:** This project consists of beach and dune improvements to approximately 8 miles of the existing mainland coast. These improvements would include construction of 60-foot-wide vegetated dune fields approximately 50 feet seaward of any existing seawalls. The Mississippi Coastal Improvements Comprehensive Plan and Integrated Environmental Impact Statement (EIS) was completed in 2009. The EIS requires that potential adverse environmental impacts be considered during implementation of each project.

12. **Documents to be reviewed:** Construction plans and specifications, Design Documentation Report (DDR), and Environmental Assessment Documentation

13. **Required reviews:**
    a. District Quality Control Review
    b. Agency Technical Review (ATR)
    c. Biddability, Constructability, Operability, Environmental, and Sustainability Review (BCOES)

d. Policy and Legal Compliance Review (EA only)

14. Site visits by review teams: Not Required

15. Justification to waive ATR, if applicable: N/A

16. ATR team disciplines and qualifications:

Team Member Discipline	Expertise Required
Team Lead	A senior professional, external to SAD, with extensive experience in preparing Civil Works implementation documents and conducting ATR, and with the necessary skills and experience to lead a virtual team through the ATR process. May be combined with another review role.
Hydrology and Hydraulic (Coastal) Engineer	A licensed professional engineer with expertise in coastal engineering including hydraulic and hydrologic modeling techniques for sediment transport and morphologic change, and expertise in the design of beach nourishment projects.
Geotechnical Engineer	A licensed professional engineer with expertise in geotechnical investigations, including soil classification, beach nourishment compatibility analysis, and borrow area design.
Environmental Scientist (Coastal)	Shall have experience in the influence of beach nourishment on coastal ecosystems and other coastal features, and the National Environmental Protection Act (NEPA) process. Should also be experienced in the National Historic Preservation Act (NHPA) Section 106 process and tribal coordination.

17. Considerations regarding the need for a SAR:

a. Could project failure result in flooding-related loss of human life? No

b. If so, what is the population at risk? N/A

c. Will the design of water impoundment or training features deviate from USACE guidance or be based on uncommon analytical methods? This project will utilize methods and techniques routinely used by the USACE on other similar projects. It is not anticipated that the design will include innovative techniques or materials that are untested and unproven for this particular scope of work.

d. If modifying an existing project, could the probability of project failure be temporarily increased during construction? N/A

18. **Determination regarding the need for a SAR:** Based on the information presented above, the District Chief of Engineering, as the Engineer-In-Responsible-Charge, does not recommend a SAR.

19. **Numerical models to be utilized:**

Model Name	Model Description	Approval Status
ArcGIS and Desktop	Geospatial data mapping tool.	HH&C Scientific & Engineering Technology (SET) allowed for use
Sediment Budget Analysis System (SBAS)	Tool used in developing sediment budgets	SET allowed for use
GenCade	A 1-D model used to calculate shoreline change, wave-induced long-shore sand transport, and morphology change	SET allowed for use
CSHORE/SBEACH	A 1-D nearshore model for predicting hydrodynamics and profile change. CSHORE is based on the phase-averaged set of governing equations and predicts the cross-shore distribution of wave height, setup, velocities, transport and morphology change.	SET allowed for use
Microcomputer Aided Cost Engineering System (MCACES), MII	Microcomputer Aided Cost Engineering System (MCACES) is the cost estimating software program tools used by cost engineering to develop and prepare Civil Works cost estimates.	Civil Works Cost Engineering and Agency Technical Review MCX mandatory
Cost Engineering Dredge Estimating Program (CEDEP)	CEDEP is the required software program that will be used for dredging estimates using floating plants. CEDEP contains a narrative documenting	Civil Works Cost Engineering and Agency Technical Review MCX mandatory

	reasons for decisions and selections made by the cost engineer. Software distribution is restricted because it is considered proprietary to the Government.	

20. Schedule and cost of reviews:

Submittal	Reviews	Cost
65% Submittal	DQC, ATR	$ 55,000
Final	DQC, ATR (completion), BCOES	$ 55,000