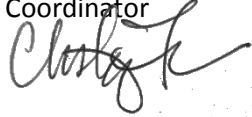




UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
Silver Spring, MD 20910

MEMORANDUM FOR: FILE

FROM: Christy Fellas, DWH Environmental Compliance Coordinator  
NOAA Restoration Center, Southeast Region 

DATE: February 21, 2019

SUBJECT: No Additional ESA or EFH Consultation Needed for Design Refinements  
to the Deer Island Subtidal Reef Component, Phase IV Early Restoration,  
Mississippi

Based on my review of project materials including design updates (see attached) and in coordination with representatives from NOAA's Protected Resource Division and Habitat Conservation Division in the South East Regional Office, the NOAA Restoration Center determined that design updates do not require re-initiation of consultation with NOAA.

Project elements have been refined within the previously considered action area and will not result in any discernible changes to the effects of the project to designated Essential Fish Habitat or species protected under the Endangered Species Act. The EFH consultation was concluded on June 2, 2015 and the ESA consultation was concluded on August 22, 2016; all BMPs and minimization measures in these consultations remain in effect for construction.

# Restoring Living Shorelines and Reefs in Mississippi Estuaries

## Deer Island Subtidal Reef Component

October 31, 2018

Memo to: Christy Fellas, NOAA Restoration Center, Deepwater Horizon NRDA Program  
Erin Chandler, Environmental Compliance Coordinator, Deepwater Horizon Gulf Restoration Office, USFWS  
David Felder, Mississippi Field Office, USFWS

The Restoring Living Shorelines and Reefs in Mississippi Estuaries project includes the restoration of secondary productivity through the placement of intertidal and subtidal reefs and the use of living shoreline techniques to reduce shoreline erosion. The project was proposed, evaluated and selected in the *Deepwater Horizon Oil Spill: Final Phase IV Early Restoration Plan and Environmental Assessments* (DOI 2015) referred to hereafter as the Phase IV RP/EA. As the designated Mississippi State Trustee under the Oil Pollution Act, the Mississippi Department of Environmental Quality (MDEQ) is responsible for implementing this project. Eight components were originally identified in the RP/EA as part of the project.

The Deer Island Subtidal Reef Component includes construction of up to 90 acres of subtidal reef creation/enhancement to restore secondary productivity.

ESA and EFH consultations for the Deer Island Subtidal Reef were previously coordinated with NOAA NMFS and USFWS in 2015 and 2016. Since that time, geotechnical and bathymetric studies and subsequent engineering design has been conducted for the project. The design engineer has completed the Final Basin of Design Report. The project is moving into the permitting phase, and a pre-application meeting will soon be scheduled with the USACE, MDMR and your agency representatives. The following is provided as a brief summary of the relevant refinements to the project design since your agency's review.

For the purposes of your review, Table 1 summarizes the engineering design and compares the current design to the data previously presented in the 2016 Final Biological Evaluation. The Conceptual Project Design that was analyzed in the 2016 consultation is shown in Figure 1. The current engineering design is depicted in Figures 2 and 3.

<b>Table 1. Deer Island Subtidal Reefs in Mississippi Estuaries-Design Refinements post ESA and EFH consultation</b>			
<b>Project Element</b>	<b>Parameters</b>	<b>Conceptual Design*</b>	<b>Current Design</b>
<b>Subtidal Reef</b>	<b>Acreage</b>	20 acres	90 acres (maximum)
	<b>Construction materials</b>	Limestone, crushed concrete, oyster shells or a combination thereof	Graded stone, processed concrete aggregate, native shell, fossilized shell, or other suitable materials
	<b>Thickness</b>	1 – 12 inches	0.2 foot to 3.0 feet in undulating ridges
	<b>Volume of materials</b>	16,140 cubic yards	Up to 45,000 cubic yards
	<b>Substrate</b>	Unconsolidated soft and hard bottom (sand, muddy sand, mud bottom and remnant reef)	Sand or firm clays, with some areas having up to 1.5 feet of soft sediment, underlain by a marine clay bearing layer
	<b>Water depth</b>	< -3 ft. MLLW	- 2.0 ft to - 7.5 ft MLLW

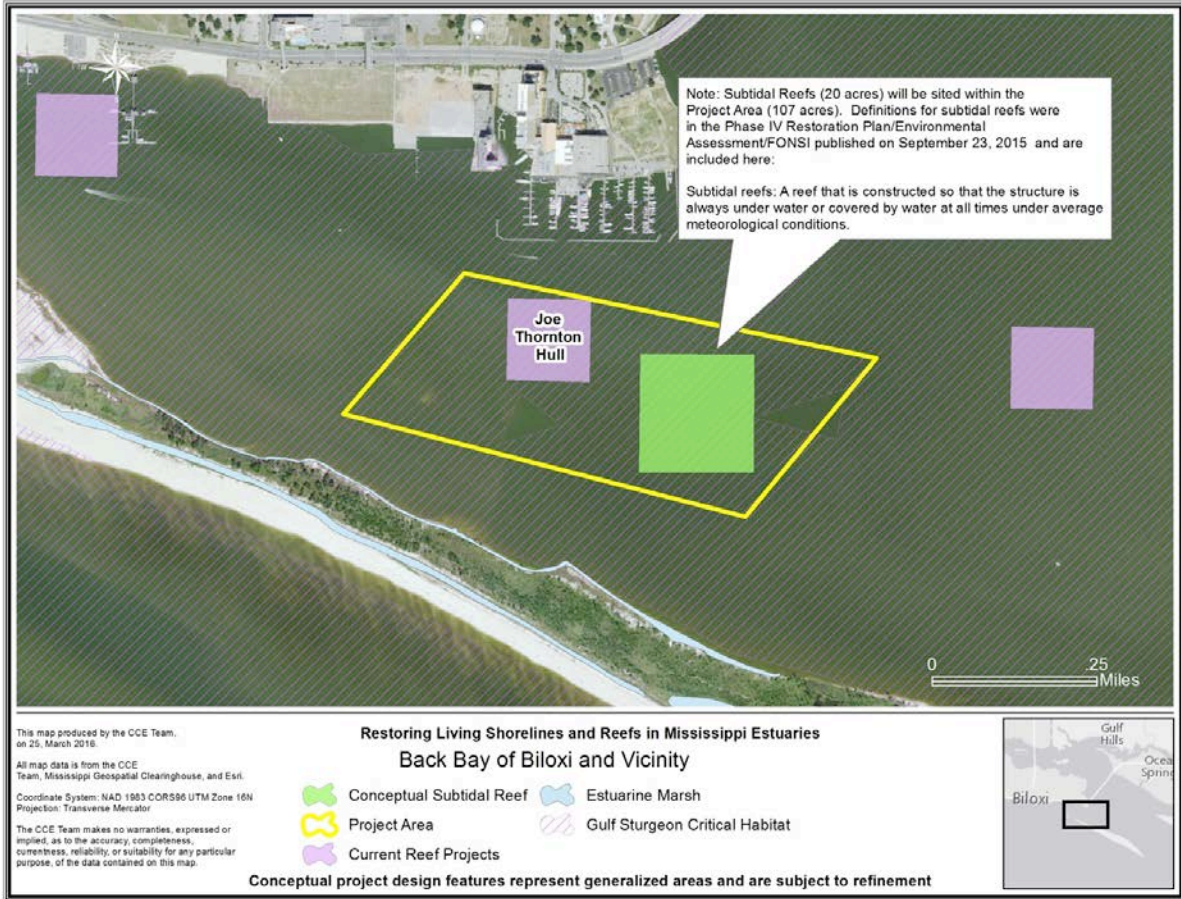


Figure 1: 2016 conceptual project design proposed in the 2016 Final Biological Evaluation

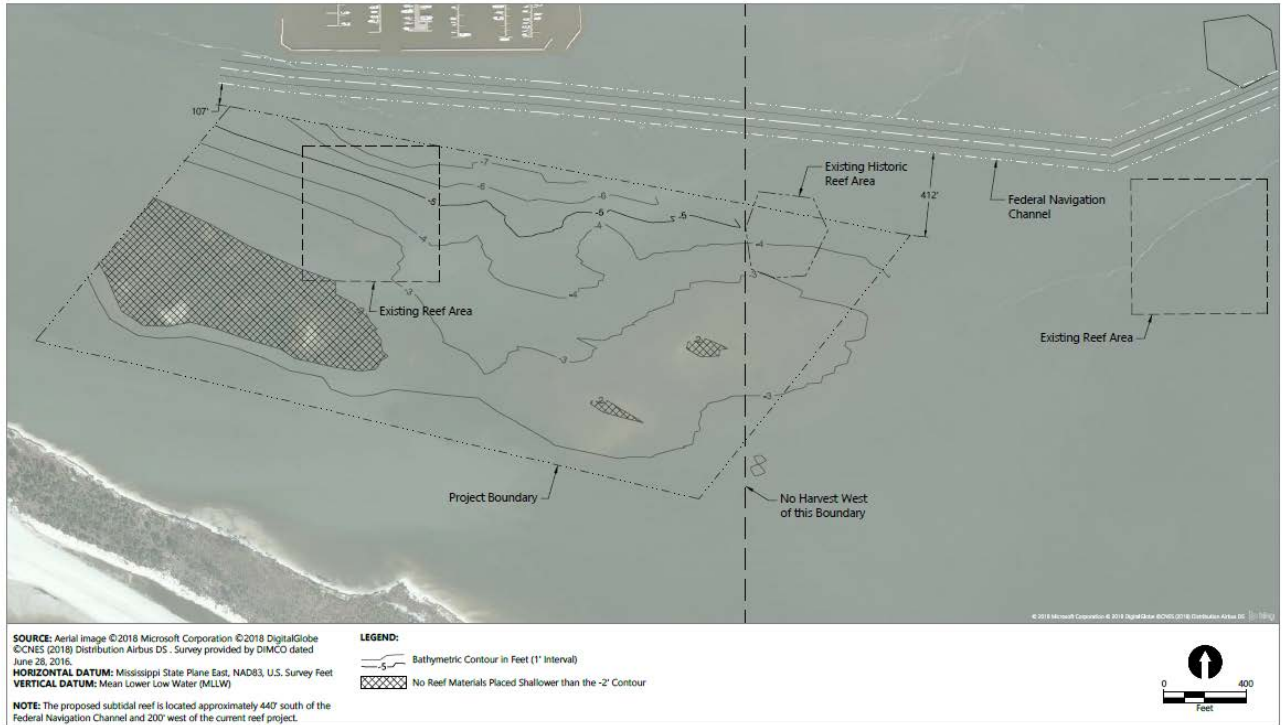
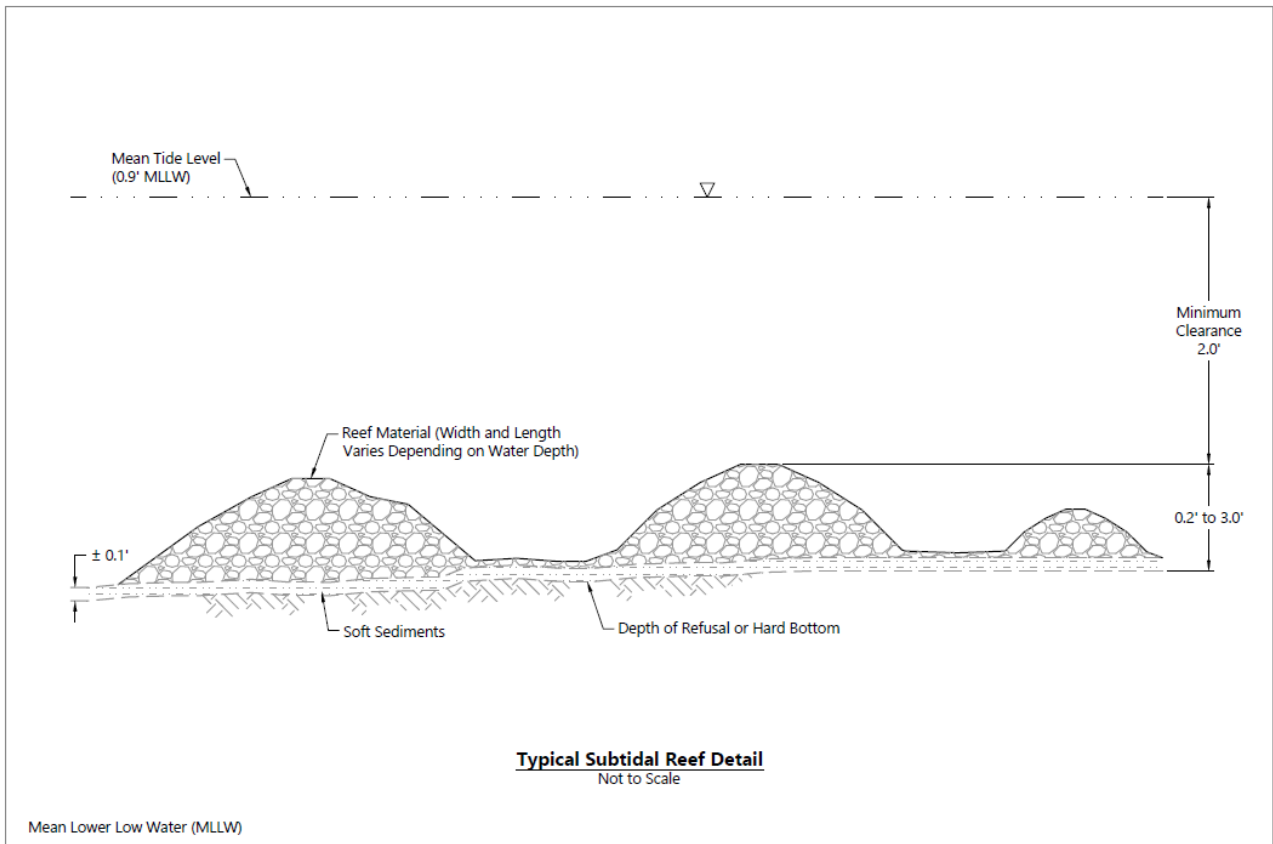


Figure 2: Current Design in Plan View



*Figure 3: Current Design in Profile View*

**References:**

DOI (Department of the Interior), 2015. *Deepwater Horizon Oil Spill: Final Phase IV Early Restoration Plan and Environmental Assessments*. September 2015.