Statement of Work

University of Southern Mississippi

RESTORE CPS Grant Cooperative Agreement: Investigation of Legacy Data in the Western Mississippi Sound

The Northern Gulf of Mexico is among the most vulnerable sections of coastline in the United States due to vulnerability to sea-level rise, subsidence, frequent hurricane impacts, oil spills, and natural/anthropogenic reductions of sediment supply. Understanding the availability, quality, and location of sediment resources is imperative for sustainability and coastal resilience of the Northern Gulf of Mexico coast.

Two previous BOEM/University of Southern Mississippi (USM) cooperative agreements (CAs; M16AC00012 and M21AC00018) are focusing on developing an understanding of the geologic evolution of late Quaternary deposits offshore Mississippi and on delineating and on developing volumetric reserve estimates of restoration quality OCS sediment resources. The CAs have revealed a significant gap in coverage area in the western Mississippi Sound (Fig 1). In order to directly link into the geologic framework that will be produced from these two studies, it is necessary to map incised valleys from river systems through the Mississippi Sound area where they continue to the OCS (Fig. 1). This is important as it will reveal which modern analogue systems are present on the shelf.

This Statement of Work outlines a BOEM/RESTORE CA that will support and complement the two existing CAs by focusing on an area offshore Mississippi/Louisiana that falls outside of the scope of both. This new analysis will help expedite the identification, characterization, and delineation of sand-rich lithosomes for estimating restoration-quality sand reserves on the Mississippi OCS. Specifically, we propose a literature review and legacy data search, synthesis, and integration in this new study area.

Statement of Work Tasks:

1. Collect existing geophysical and geological data (digital and analog forms from various sources including USM, BOEM, Mississippi Department of Marine Resources, Mississippi Department of Transportation, Mississippi Department of Environmental Quality, U.S. Army Corps of Engineers, U.S. Geological Survey, etc.) for the study area and compile into a spatial geodatabase using BOEM-specified formatting (including compliant metadata).

   This task includes:
   a. Digitization of analog data
   b. Georectification of data for projection in GIS
   c. Integrating navigation data with geophysical profiles.
   d. Other data specific subtasks necessary to bring data into GIS and other analytical software (e.g., Sonarwiz, Surfer).

2. Literature review, synthesis, and compilation of a reference database of relevant literature. Any spatially relevant products should be included in the spatial database complied under Task 1 (e.g., data points; interpreted locations or isopachs of sand bodies, valley fills, channel fills, etc.).

Personnel:

PhD student Carrie Miller is working directly with the existing CAs as part of her dissertation work. Given her direct involvement, she is an ideal candidate to lead the integration of these new legacy datasets into the broader framework associated with the CAs.

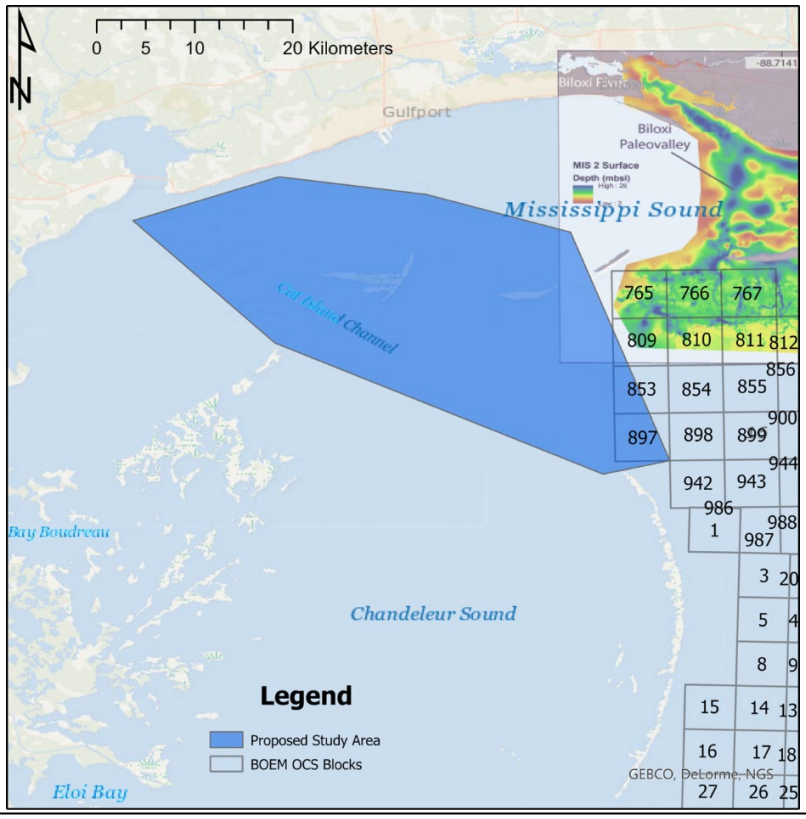

Fig. 1. The blue polygon indicates the proposed study area this Statement of Work. Also shown is the incised valley surface from the existing CA study areas and associated lease blocks. The blue polygon is entirely west of the study areas of both CAs study areas.

Proposed Budget:

		Year 1			
		Agency		USM	
SALARY (SALARY)	Monthly Pay Rate	# of Mos		# of Mos	
Carrie Miller	2000	4.868	9,736		0
Employee Name			0		0
Employee Name			0		0
Employee Name			0		0
Employee Name			0		0
	Subtotal		**9,736**		**0**
FRINGE (FRINGE)					
Carrie Miller	4.9000%		477		0
Employee Name	0.0000%		0		0
Employee Name	0.0000%		0		0
Employee Name	0.0000%		0		0
Employee Name	0.0000%		0		0
	Subtotal		**477**		**0**
TOTAL PERSONNEL			**10,213**		**0**
COMMODITIES (COMMOD)			0		0
COMMUNICATIONS (COMCAT)			0		0
CONTRACTUAL SERVICES (OTCSVC)			0		0
PROFESSIONAL FEES (PROFES)			0		0
TRAVEL (TRAVEL)			0		0
EQUIPMENT (EQUIP) (>$5,000)			0		0
PARTICIPANT COSTS (PARTIC)			0		0
RENTS (RENTS)			0		0
SUBCONTRACTS (SUBCON) (F&A charged on first $25K/sub)			**0**		**0**
Sub A (add total sub amount; need separate detailed budget)			0		0
Sub B (add total sub amount; need separate detailed budget)			0		0
Sub C (add total sub amount; need separate detailed budget)			0		0
TUITION (SCHOL)			0		0
(AY20-21: $10,250 (in-state) + 5% increase/yr; add $2,000 for OOS, if needed)					
TOTAL DIRECT COSTS			**10,213**		**0**
MTDC			**10,213**		**0**
F&A (INDIRT) **MTDC**	Rate* =	17.5%	**1,787**		**0**
	*Adjust % as needed				
TOTAL PROJECTS COSTS			**12,000**		**0**