

**STATE OF MISSISSIPPI COASTAL IMPACT ASSISTANCE PLAN
TIER 1 PROJECT DESCRIPTION**

1. PROJECT TITLE: Gulf Coast Geospatial Center Support to the Mississippi Department of Marine Resources

2. LEAD ORGANIZATION/AGENCY: University of Southern Mississippi/Gulf Coast Geospatial Center (GCGC)

3. FEDERAL TAX ID NUMBER: 64-6000818

4. PROJECT LEAD/POINT OF CONTACT:

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5. PROJECT SUMMARY

LOCATION OF PROPOSED PROJECT: Gulf Coast Research Laboratory – N 302°3'39.0" / W088°47'49.8"

DURATION OF PROPOSED PROJECT: 4 years; funding requested in FY 2008.

PROPOSED START DATE: January 2009

PROPOSED END DATE: December 2012

PROJECT GOAL: To provide geospatial services to the Mississippi Department of Marine Resources (MDMR) that will complement and support their existing GIS program by providing specific data and projects related to shoreline/marsh changes caused by Hurricane Katrina and modernizing wetland use plans. These services will aid MDMR in their mission to enhance, protect and conserve the marine interests of the State of Mississippi including marine life, public trust wetlands, adjacent uplands and waterfront areas.

PROJECT OBJECTIVES: Specific objectives include the following services*:

Objective 1: Document Katrina Related Shoreline/Marsh Change:

Year 1 – Data identification, feasibility and demonstration of shoreline/marsh change program. Deliverables include digital and paper copies of maps, web pages, etc.

including IMS interactive web product which will include debris coverage and tree mortality.

Year 2 – Shoreline/marsh change data collection and program development for the Mississippi Gulf Coast. Deliverables include digital and paper copies of maps, web pages, etc. including IMS interactive web product.

Year 3 – Resample of Shoreline/marsh change data sets and reproduction of products. Deliverables include digital and paper copies of maps, web pages, etc. including IMS interactive web product.

Year 4 - Resample of Shoreline/marsh change data sets and reproduction of products. Deliverables include digital and paper copies of maps, web pages, etc. including IMS interactive web product.

Objective 2: Modernize Wetland Use Plans

Years 1 – 4 -- Deliverables include digitized wetland use plans to be provided to the MDMR on an annual basis for the duration of the project. Data to be provided by MDMR.

General Services	Deliverables
Production of GIS maps	Digital maps (classification maps, raster files, shape files, .mxd files).
Scanning/Digitization Services for hard copy documents, up to 42” wide document originals	Digital documents (documents, maps, raster files, shape files).
Large format color printing services	Maps, posters, up to 42” wide document.
Interactive Video Network (IVN)	DMR will use the GCGC IVN to deliver training and conduct meetings.
Computer Laboratory	DMR will use the GCGC technology training laboratory to conduct training.
Digital Media Production	GCGC will create digital media (CD/DVD) as requested.

**Specific Deliverables to be determined by MDMR and are limited by funded dollar amount, man hours or piecework. The funding will be applied to person hours as needed, based on the skill set required to carry out the work requested by the DMR.*

PROJECT SUMMARY: In order for the MDMR to fulfill its mission, the agency needs precise, complete information. The Gulf Coast Geospatial Center (GCGC) is uniquely qualified to meet the challenges of such an undertaking. The premiere geospatial and remote sensing operation on the Mississippi Gulf Coast, the GCGC recently earned designation as the Mississippi Spatial Reference Center (MSRC) by NOAA, along with

the current research and development staff the GCGC is positioned to respond to the needs of the MDMR in the relevant areas of Remote Sensing and GIS. Data collection, data processing, modeling, layer development, IMS design, database design and management, asset tracking, risk management are just a few examples of the types of deliverables to MDMR.

This project will provide MDMR with a mechanism to call on the resources of an established critical mass of GIS and remote sensing capability, embedded in an organization with similar geographic and scientific areas of interest. The GCGC located at the University of Southern Mississippi's Gulf Coast Research Laboratory (GCRL) in Ocean Springs, Mississippi was created out of a grant from the National Aeronautics and Space Administration (NASA) in 2000. Since its inception the GCGC has formed relationships with numerous federal and state agencies to provide remotely sensed data and geospatial products in support of agency efforts in the Mississippi Coastal Zone. The skill sets available through GCGC to the MDMR include, remote sensing scientists, GIS analysts, and software and hardware technicians. These professionals, along with a 20+ terabyte storage area network, constitute a robust capability that is currently underutilized by the MDMR. This project will allow the MDMR to leverage the skill sets available in the Gulf Coast Geospatial Center, and will increase the capacity of the center, encouraging both organizations to expand both scale and scope.

In addition, this project will provide the MDMR access to a pool of GIS/Remote Sensing expertise and research talent in the form of practicing PhD. level and graduate student coastal researchers applying technology to real-world problems. The scope of the work described herein is inherently different than that currently provided by MARIS (Mississippi Automated Resource Information System) and the Mississippi Coordinating Council for Remote Sensing and Geographic Information Systems (GIS Coordinating Council). MARIS develops statewide datasets, provides technical assistance, promotes collaboration, and provides a valuable clearinghouse of state related datasets. These datasets are typically based on regional scales and include broad content. This capacity provides great opportunities for regional or statewide scale projects. The Coordinating Council's primary objectives are to coordinate GIS-related activities within the state and facilitate cost-sharing arrangements in an effort to reduce the costs of data acquisition and development within Mississippi. The project described herein focuses on a smaller area generating larger scale datasets with subsequent greater detail. Where the typical scale for a regional or statewide dataset is usually 1:24,000 to 1:100,000, the scale at which counties or groups of counties would develop data are in the range of 1:1,200 to 1:4,800. Thus, this project would be conducted in coordination with the aforementioned entities to ensure the collaborative benefit and avoid duplication, and will build on the relevant datasets available from these two statewide entities.

PARTNERS/COLLABORATORS: USM/MDMR.

Note: MDMR is an active member of the Mississippi GIS Council Policy Advisory Committee appointed by the state legislature, and MDMR GIS staff are members of

the Technical Users Group. MDMR frequently access data available from MARIS and provide new data acquired to MARIS as needed.

For this and all GIS-related projects funded through CIAP, MDMR will acquire new data that is unavailable at MARIS or through the members of the GIS Council. MDMR will ensure all new data acquired through CIAP projects are assimilated into the MARIS system and are clearly communicated to the GIS Coordinating Council membership. Prior to the acquisition or development of any new data sets, both entities will report their plans to the Coordinating Council to prevent any duplication or interference with other emerging data acquisition. It is important to note that the [GIS Council Technical Team reviews all state system purchase orders for data acquisition and manipulation for review and approval to make sure there is no duplication and that orders are consistent with the goals of the state.](#)

BUDGET AND SPENDING ESTIMATE BY YEAR:

Table 1: CIAP Project Budget by Year

Budget Category	2009	2010	2011	2012	Total
Total Allocation (AY 2008)	\$62,428	\$62,428	\$62,428	\$62,428	\$249,712
Total Budget Amount					\$249,712

Total estimated expense by calendar year:

2009	\$62,428
2010	\$62,428
2011	\$62,428
2012	\$62,428

6. AUTHORIZED USES:

Table 2: Primary Authorized Use

Mark one	Authorized Uses of CIAP Funds (as specified by law)
x	1. Project and activities for the conservation, protection, or restoration of coastal areas, including wetland
	2. Mitigation of damage to fish, wildlife, or natural resources.
	3. Planning assistance and administrative costs of complying with CIAP (for DMR, Harrison, Hancock and Jackson County Administrative Projects only).
	4. Implementation of a federally-approved marine, coastal, or comprehensive conservation management plan.
	5. Mitigation of the impact of OCS activities through funding of onshore infrastructure projects and public service needs.

HOW THIS PROJECT IS CONSISTENT WITH ONE OR MORE OF CIAP'S AUTHORIZED USES? This project supports CIAP Authorized Use 1 by enhancing the capacity of DMR to provide focused, concise information to its constituency and other resource managers on the impact of Hurricane Katrina on shorelines and

marshes and to update wetlands use plans. The GCGC will play a vital role in the outreach efforts necessary to promote conservation, and restoration in the coastal zone of Mississippi by developing and providing these important update to MDMR. By leveraging the expertise and computing capacity at the University of Southern Mississippi, the MDMR will be able to create a more robust presence as it strives to provide services and information to the residents, commercial interests, and federal parties engaged in MDMR sanctioned activities in Mississippi.

7. WILL CIAP FUNDS BE USED FOR COST SHARING OR MATCHING PURPOSES FOR ANOTHER FEDERAL PROGRAM? ____YES__x_ NO.