

10

GULF COUNTY RESTORE ACT PROJECT PRE-PROPOSAL FORM

Project Name:

GIS Data Gap Analysis and Geographic Database Development to Support the Design, Development, and Evaluation of Environmental Restoration Projects in Gulf County

Submitting Entity:

CSA Ocean Sciences Inc.
8502 SW Kansas Avenue
Stuart, Florida 34997

- I. Please select one or more eligible activity that the project is classified under:
- Restoration and protection of the natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast region.
 - Mitigation of damage to fish, wildlife and natural resources.
 - Implementation of a federally approved marine, coastal or comprehensive conservation management plan, including fisheries monitoring.
 - Workforce development and job creation.
 - Improvements to or on State parks located in coastal areas affected by the Deepwater Horizon oil spill.
 - Infrastructure projects benefitting the economy or ecological resources, including port infrastructure.
 - Coastal flood protection and related infrastructure.
 - Planning assistance.
 - Promotion of tourism and seafood in the Gulf Coast region.
- II. Please provide an executive summary of the project. Describe/quantify the economic (jobs, infrastructure, tourism, etc.) and environmental benefits (habitat, quality, knowledge, long-term sustainability, etc.).

CSA Ocean Sciences Inc. (CSA) proposes to partner with Gulf County to evaluate, compile, and assess the accuracy and completeness of existing, publicly available (non-classified) Geographic Information System (GIS) data and create a GIS database of coastal environmental data layers for application within a user-friendly, interactive geospatial portal. A substantial amount of geographically useful information is publically available online. Many counties already support important online geographic data such as boundaries, tax base, populations, rivers, roads, property, and, in some cases, soils and living resources, but are limited in the accessibility to or and/or the application of marine, coastal, and bay habitat data layers during planning efforts. Although the scope of the online data available is enormous, the data are often outdated (time-sensitive), ever-expanding, and available in a range of formats. This makes it difficult and time-consuming to meaningfully integrate with local data for real-time application, particularly without modification by professional GIS staff in coordination with a dedicated environmental management team.

This project proposes to develop a GIS database for use by the Gulf County RAC and BOCC as an environmental decision tool that will provide a clear framework to design, develop, and/or evaluate proposed or potential environmental restoration projects such as those being proposed under the RESTORE Act. This geo-spatial database will help guide environmental decisions for environmental restoration projects and be available for long-term utilization as an effective natural resource management

tool. The database will be populated with the most current information at the time of compilation and can be updated by Gulf County as necessary as new data layers become available. Where critical information gaps are identified that inhibit effective project selection, ranked strategic goals for filling in those data gaps will be devised as a means to provide a comprehensive database reflecting Gulf County's environmental and economic priorities.

Database and information sources for the GIS database will be gathered from Gulf County (and the Economical Development Committee), the National Oceanic and Atmospheric Administration (NOAA), Florida Fish and Wildlife Conservation Commission (FWC), Florida Department of Environmental Protection (FDEP), U.S. Coast Guard (USGS), the Florida Geographic Data Library, universities, and other government and non-government sources, including private (non-classified) sources such as the Port of Port St. Joe stakeholders and the Mexico Beach Artificial Reef Association. Data will consist of various kinds of information, including but not limited to, the following:

- Satellite imagery collected using a range of sensors that can detect land cover and water quality;
- Aerial photography;
- Conventional topographic and bathymetric survey data;
- Airborne laser survey data (LIDAR);
- Environmental studies (e.g., oyster reefs, shrimp grounds, essential fish habitat, benthic habitat maps);
- Critical habitat and migratory areas for threatened and endangered species;
- Artificial reefs;
- Shipping lanes;
- Marine parks/preserves;
- Topography merged with underwater depth maps (bathymetry);
- All geographic boundaries; and
- Economic and cultural data for the county and region.

The steps for the development of the GIS database will begin with identifying specific coastal marine habitat areas and the bio-physical (i.e., currents, water quality) influences and utilization on those habitats (e.g., fishing, harvesting, dredging). This critical first step will lay the groundwork and serve as a baseline to evaluate the environmental and economic benefits of other restoration and protection projects. After initially identifying habitats in greatest need of restoration or the areas most suitable for habitat enhancement (e.g., artificial reefs), specific projects can be designed by the County or funded through the RESTORE Act based on the environmental benefits as well as the economic benefits relative to jobs created during project construction, enhanced tourist opportunities, increased landings of finfish and shellfish, and water quality improvement programs vital to attracting both residents and tourists to Gulf County.

This proposed project will benefit Gulf County by creating an environmental decision tool that will provide a clear framework to design, develop, and/or evaluate proposed or potential environmental restoration projects for implementation under the RESTORE Act. Environmental projects are guided by understanding of distribution, abundance, and status (e.g., quality and abundance) of living marine resources and their habitats, including their geographic context with respect to human uses and needs. Resulting economic benefits (workforce, infrastructure, planning, tourism, and seafood) are driven by a clear understanding of these environmental conditions and the geographically accurate assessments of where these needs are manifested in the County.

III. Please provide a cost summary/budget. Detail any matching/cooperative funds available for use, and any cooperative support from governmental or other agencies.

CSA has conducted similar GIS inventory assessments, data mining works, and database development projects associated with exclusionary mapping, permitting, and environmental management initiatives of varying scopes and scales. Based on our experience, the cost for this project could range from \$15,000 to \$25,000 for labor and project management. This estimate does not include the purchase of any hardware (GIS server) or software or system maintenance.

IV. Please provide a timeline for project completion. Explain the technical and environmental feasibility (including any permitting considerations) of the project.

The timeline for this project could range from 3 to 6 months, depending on the availability and quality of the data. This effort is strictly a desktop, geospatial data tool development project and would not require any permitting.

V. Please provide the qualifications of the Submitting Entity, the financial feasibility/sustainability and the economic feasibility and sustainability of the project (probability of success, etc.).

Having worked in Florida since 1970, CSA conducted one of the earliest oyster reef delineation surveys (1983) within Apalachicola Bay, St. Georges Bay, and St. Vincent Sound. Our firm has performed hundreds of surveys, assessments, and monitoring programs for counties throughout the State of Florida to support a wide range of programs, including habitat mapping, restoration, artificial reef development, and beach nourishment projects, to name a few. A recent program conducted under contract to Martin County included the mapping, planning, constructing, and monitoring of a large-scale, \$4 million oyster reef restoration program in the St. Lucie Estuary.

Our dedicated GIS Department supports environmental and marine services for industry and government and offers a wide range of GIS applications and services, including mapping and cartography, baseline and post-impact environmental characterization, data management, site selection, natural resource planning, pollution analysis, remote sensing, and emergency preparedness planning. GIS also facilitates analysis, interpretation, and presentation of environmental data and information, including images and video. Our GIS/Remote Sensing Analysts and technicians use GIS to generate maps for environmental programs as well as for environmental planning, field surveys, data management, data analysis, and documentation to ensure that complex scientific issues are appropriately addressed and easily understood to enable informed natural resource decisions. CSA's applications of GIS include the following:

- Exclusionary Mapping
- Project Planning
- Experimental Design
- Site Selection
- Desktop Studies
- Remote Sensing
- Program Coordination
- Database Management
- Map Production

CSA has a number of personnel highly experienced in GIS applications, including four GIS/Remote Sensing Analysts who are educated and experienced in geographic analysis, interpretation, and synthesis, having worked on numerous multidisciplinary projects for government and industry clients.

There is little financial risk in developing a GIS database for use in environmental decision-making and long-term planning, while the risks of making decisions in absence of current, spatially explicit data can increase the risk of implementing low-performing projects. Developing GIS database products is quite feasible and has become a common tool for use in a range of disciplines within the public and private sectors. Sustaining a quality database requires some investment over time, primarily in staff time and software updates.

VI. Please provide the anticipated results of the project, and whether it is included in a City of Port St. Joe, City of Wewahitchka or Gulf County Comprehensive and Mitigation Plan?

This project will provide Gulf County with a powerful means to develop, design, evaluate, and implement projects with respect to the current condition of the coastal and bay habitat areas and living marine resources relative to the economic and environmental benefits of the County and the region. Through close coordination with Gulf County staff, the GIS database and online portal will be developed to ensure that the data layers gathered (and/or recommended to fill in data gaps) will also support the goals, policies, and objectives of the Coastal Management and Economic Development Elements of the Gulf County Comprehensive Plan's, specifically associated with the following policies:

- 1.4.6: Use the best available data for natural resources including site specific surveys to identify potential habitat for endangered, threatened and species of special concern;
- 1.8: Coordinate coastal protection with adjacent local counties; and
- 1.9.3: Encourage beach restoration and maintenance.

Submitted By:


Signature

14 January 2013
Date

CSA Ocean Sciences Inc.
Company Name

8502 SW Kansas Avenue
Address

Stuart, Florida 34997
Address

772-219-3000
Telephone Number

csa@conshelf.com; amccarthy@conshelf.com
E-mail Address (if applicable)



CSA Ocean Sciences Inc.

8502 SW Kansas Avenue
Stuart, Florida 34997

www.csaocean.com

Phone: 772-219-3000
Fax: 772-219-3010

14 January 2013

Gulf County Board of County Commissioners
Board of County Commissioners
1000 Cecil G. Costin, Sr. Blvd.
Port St. Joe, Florida 32456

Dear Commission Members:

CSA Ocean Sciences Inc. (CSA) is providing this RESTORE Act Project Pre-Proposal submission in response to the recent call by the Gulf County BOCC for projects supporting the economic and ecological well-being of Gulf County.

CSA looks forward to providing guidance, quality information, and job creation in support of the County's RESTORE Act goals.

Sincerely,

Anne McCarthy
Director, Coastal Restoration



mwconsult.us • mathews-webster.com

**BOARD OF COUNTY COMMISSIONERS
GULF COUNTY, FLORIDA
RESTORE ACT COMMITTEE (R.A.C.)**

1000 CECIL G. COSTIN SR. BLVD., ROOM 312 , PORT ST. JOE, FLORIDA 32456
PHONE (850)229-6144 • FAX (850) 229-9252 • EMAIL: tkopinsky@gulfcounty-fl.gov

**PUBLIC RECORDS POLICY AND PUBLIC ACCESS ACKNOWLEDGMENT FOR
GULF COUNTY RESTORE ACT APPLICANTS**

I, Anne McCarthy, Director, Coastal Restoration, the undersigned authority and/or representative of the entity CSA Ocean Sciences Inc. and or the individual who has submitted the Gulf County RESTORE Act Proposal/Pre-Proposal titled “GIS Data Gap Analysis and Geographic Database Development to Support the Design, Development, and Evaluation of Environmental Restoration Projects in Gulf County” hereby acknowledge, consent and accept the following representations that coincide with my/our submission for consideration, evaluation and possible recommendation and approval by the Gulf County Board of County Commissioners for funding from the RESTORE Act distribution that strictly complies with the guidelines and regulations set forth under the Restoration and Ecosystems Sustainability, Tourist Opportunities and Revived Economies of the Gulf Coast States Act of 2012:

1. I/We am the authorized representative of the application/pre-proposal referenced above.
2. I/We have thoroughly reviewed and familiarized myself and/or my entity on which I have submitted the application/pre-proposal on behalf of with the entirety of the Gulf County Public Records policy.
3. I/We have thoroughly reviewed and familiarized myself and/or my entity on which I have submitted the application/pre-proposal on behalf of with the entirety of the Florida Statute Chapter 119 which controls and permits public access to information.
4. I/We hereby acknowledge, consent and agree to the controlling policies and statutes above as well as the free and open exchange of any and all submissions provided hereunder this application/pre-proposal and all information exchanged hereafter including but not limited to further amendments to these proposals as well as surveys, studies, research, data production, books, drawings, property records, work papers, county owner lists, files, forms, reports, accounts, documents, manuals, handbooks, instructions, printouts relating in any manner for the production of the application. In addition, all papers, notes, data, reference material, documentation, programs, printouts, and all other media and forms of expression that in any way include, incorporate or reflect any confidential information of what ultimately shall become the Gulf County plans for use and application of the RESTORE Act funding.
5. I/We acknowledge, agree and fully consent to cooperate with the appointed Gulf County RESTORE ACT committee, county officials and staff as a continuing obligation and condition of final review for this RESTORE Act application/pre-proposal.
6. I/We have submitted this acknowledgment to Gulf County RESTORE Act Committee and the Gulf County Board of County Commissioners for the purpose and intent of receiving an evaluation, review and possible recommendations for anticipated funding from the Restoration and Ecosystems Sustainability, Tourist Opportunities and Revived Economies of the Gulf Coast States Act of 2012.



Signature of RESTORE Act Applicant

Date: 1/16/2013

Anne S. McCarthy

Printed Name