FLORIDA GULF OF MEXICO RESTORATION PROJECT SUBMITTAL

CLEARWATER MARINE AQUARIUM™

1.0 Project Name

Gulf of Mexico, Coastal Research and Education Consortium

2.0 Contact Information

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Texas State Aquarium, Texas
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Audubon Aquarium of the America's, Louisiana
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3.0 Project Location

Clearwater Marine Aquarium (CMA) currently responds to marine life, including cetacean (i.e. dolphin and whale) and sea turtle stranding events in the Gulf of Mexico and greater Florida region. CMA's designated response areas include Pinellas, Hillsborough, Pasco, Hernando, Citrus, and Levy County. Thus, CMA's response area ranges from approximately 27.57737 N, 82.700615 W to 29.29192 N, 83.16295 W (Figure 1). The aquarium and Critical Care facility are located in Clearwater, Florida in Pinellas County.

In addition, this program will also work in conjunction with other Gulf of Mexico states that include: Alabama, Louisiana, Mississippi and Texas (Figure 2).

4.0 Project Description

4.1 Summary

Clearwater Marine Aquarium (CMA) submits this proposal as an initiative focusing on the exchange of information between CMA, located in Clearwater, Florida and the University of South Florida-College of Marine Science, located in St. Petersburg, Florida. In addition, CMA will also work in conjunction with other Gulf State Aquariums and Research Centers, such as: Dauphin Island Sea Lab, Alabama; National Mississippi River Museum and Aquarium, Mississippi; Texas State Aquarium, Texas; and the Audubon Aquarium of the Americas in Louisiana.

Currently, CMA primarily responds to stranded marine life in six counties, of which four (i.e. Pasco, Hernando, Citrus, and Levy) are considered high priority counties by the National Marine Fisheries Service. These counties are regionally a high priority due to the limited data collected on stranding and other incident events. This consortium will promote the sharing of data with other Gulf Coast aquaria. The information shared between these facilities can be utilized to further our understanding of marine animals and Gulf ecosystem, including the effects of human interactions such as oil spills.

4.2. Background

Clearwater Marine Aquarium is a national marine wildlife rescue and rehabilitation center, attracting tens of thousands of visitors each year to our facility. As guests from all over the county and Florida frequent the aquarium, the educational display will be continually updated with new and current data concerning the restoration efforts conducted by the University of South Florida as well as the other aquaria and research centers in the Gulf region. The classrooms will be used to educate future generations about the Gulf's ecosystem, the effects of the Deep Water Horizon oil spill, and environmentally-conscious practices to help with the Gulf's recovery.

4.3 Objectives

- Establish Clearwater Marine Aquarium as an educational voice to work in conjunction with University of South Florida's current research being conducted in the Gulf.
- Create a research database for the purposes of data collection and collaboration.
- Develop educational displays and classrooms which serve to educate the public and future generations concerning Gulf restoration projects.
- Establish working relationships with other Gulf state aquariums and research centers to disseminate information about Gulf restoration projects across all states impacted, which will in turn reveal areas where additional study is necessary.

4.4 Methodology

This project proposes the development a working partnership of a Gulf Data and Research Collaboration Initiative between Clearwater Marine Aquarium, the University of South Florida and the Gulf State Aquariums. Research efforts concerning the Gulf and the restoration process are currently fragmented and so a central reservoir of information needs to be established. Clearwater Marine Aquarium will develop a shared research database between these entities that will enable all members of the consortium to access data.

In addition, CMA will conduct live broadcasts directly from the Gulf of Mexico from research vessels, such as that from University of South Florida. The application requires the construction of a theater in which broadcasts will be streamed live to guests visiting the aquarium. A collaboration will be formed with Dr. Steve Murawski and his colleagues from the University of South Florida's College of Marine Science to narrate these broadcasts. Filming footage at CMA and from vessel recordings and live Skypes will be shared to other consortiums, guests and classrooms through the technical sound studio and theater. See appendices (Figures 3 and 4) for equipment samples.

4.5 Dissemination

To develop our epicenter of communication, Clearwater Marine Aquarium will reach out to other Gulf Aquariums and begin to develop a research database. CMA also proposes to broadcast live from research vessels. Live broadcast feeds would then be projected into a theater where Aquarium

guests would be able to view actual research being conducted and to communicate with the scientists on board. The proposed theater and broadcasting equipment will also be used to communicate with the Gulf aquariums and other research centers proposed in this project. Finally, the information collected will be shared with public and collaborative displays will be constructed which provide a complete picture of the overall restoration efforts of the Gulf.

5.0 Estimated Project Costs

The 6-year budget for this project is $1,162,876 (review attached budgets). For the budget years from 2013-2018, the first two years, Clearwater Marine Aquarium will complete the fundraising and planning portion of the project. The next three years, will include construction costs and purchasing of equipment. Additionally, the staffing and personnel will be added for the final four years.

6.0 Other Funding

This particular portion of the new building construction currently does not have other funding. Other fundraising efforts will be done to complete the balance of the construction costs.

7.0 Technical Feasibility

This project requires technology that is already in existence and typically used for the purposes proposed within. Skype is a common communication tool and is well-suited for communicating the information to the public. The accompanying communication web proposal submitted in this application uses standard emailing, scanning, faxing, telephony, and mail services.

8.0 Environmental Benefits

Scientists are still assessing the effects of the estimated 170 million gallons of oil that flooded into the Gulf after the explosion of BP's Deepwater Horizon oil rig. More than 8,000 birds, sea turtles, and marine mammals were found injured or dead in the six months after the spill. The long-term damage caused by the oil and the nearly 2 million gallons of chemical dispersants used on the spill may not be known for years.

Though oil is no longer readily visible on the surface, it isn't gone. Scientists have found significant amounts on the Gulf floor and the oil that has already ashore will likely persist for years. We likely will not see the full extent of the impact for many years which make the creation of a data and research collaboration information web between the Gulf state aquaria even more important along with current updates directly from the Gulf.

9.0 Economic and Social Benefits

The Deep Water Horizon event not only caused severe trauma to the ecosystem, but also poses a serious threat to the economy of the Gulf.

The Gulf oil disaster hit at the peak breeding season for many species of fish and wildlife. The oil's toxicity may have hit egg and larval organisms immediately, diminishing or even wiping out those age classes. Without these generations, population dips and cascading food web effects may become evident in the years ahead.

Scientists will be watching fluctuations in wildlife populations for years to come. It wasn't until four years after the 1989 Exxon Valdez oil disaster that the herring population collapsed. Twenty years later, it is still has not recovered. In addition, the Gulf Coast states rely heavily on commercial fishing and outdoor recreation to sustain their local economies. According to NOAA, commercial fisheries brought in $659 million in shellfish and finfish in 2008 and just over 3 million people took recreational fishing trips in the Gulf that year. After the spill, recreational fishing from the Atchafalaya Delta to Mobile Bay was shut down from May to August, and state park closures dealt a serious blow to the parks' summer revenue.

Because of the great economic importance of the Gulf and the very real possibility that all of the effects of Deep Water Horizon are still unknown, this project is of great economic and social benefit not only to Florida, but to all of the Gulf States. The sharing of data and the utilization of a centralized database such as Clearwater Marine Aquarium is key to identifying future research needs. Providing real time access to the public from research vessels is also critical for keeping the public informed and providing an outlet for the important research being conducted to remain relevant. The last component of this proposal, the educational component, links the other pieces together. The educational exhibits and classroom programs serve to educate future generations about the current condition of the Gulf and ways to support and conserve the ecosystem.

10.0 Community Resilience

Data from this project can be used by all levels (city, county, state, and federal) for planning and conservation initiatives.

11.0 Conflicts or Complements to Existing Efforts

This project proposes to solve a fundamental problem with current research efforts with the dissemination of information and the collaboration of research efforts across the Gulf States. In addition, this project will keep the public current and up to date on the issues facing the Gulf waters and the progress of the restoration process. The project therefore does not anticipate any conflicts and will serve to complement existing efforts.

12.0 Complies with Federal, State, Local, and Tribal Laws/Regulations

This project complies with all Federal, State, Local, and Tribal Laws/Regulations.

13.0 Readiness for Implementation

This project will be implemented in stages. The initiation of the database between Clearwater Marine Aquarium and the University of South Florida along with the other Gulf State aquaria and research centers will be the initial stage. With the information disseminated between the Gulf States, the educational displays and exhibits will be developed and created. The following stages of this proposal will be implemented over the next four years. This includes the construction of the theater for live broadcasts into the aquarium from the University of South Florida research vessels and the construction of the classrooms to conduct educational programs about the Gulf.

14.0 Public Acceptance

Deepwater Horizon impacted the ecosystem as well as the livelihood of people across the Gulf States. This project proposes the dissemination of data from all Gulf States affected to better serve the restoration process, raise public awareness, and educate future generations.

15.0 Additional Information

Please see attached appendices