

Project Name:

Channel Marker Reef Ball Micro-Habitats

Contact Information *(Include at least one name, phone number, email address, and organization name if applicable):*

Larry Beggs

Larry@reefinnovations.com

Cell 941-650-2519

1126 Central Ave.

Sarasota, FL 34236

Reef Innovations / Reef Ball Foundation

Project Location *(Include a map, if possible, and the city, county, longitude/latitude, and watershed):*

Gulf Waters from Texas to South Florida

Florida – Bay, Charlotte, Citrus, Collier, Dixie, Escambia, Franklin, Gulf, Hernando, Hillsborough, Jefferson, Lee, Levy, Manatee, Monroe, Okaloosa, Pasco, Pinellas, Santa Rosa, Sarasota, Taylor, Wakulla, Walton.

Coast Guard GIS provides locations of Channel Markers across the area for deployment.

The actual markers and time for deployment will vary upon survey of the area. Ideally and equal distribution between the counties over the first year, and increasing the numbers over the next several years depending on the volume and priority requested by each county.

Project Description *(Describe all aspects of the project):*

Each County in the State has a number of channel markers they are responsible for maintaining. The USCG permits the channel markers; by dropping a reef ball on each channel marker we provide micro habitats across a wide area of the Gulf of Mexico. Production of Reef Balls is done by Reef Innovations in Sarasota, FL.

A proposal has been submitted for funds to set up a production facility in the pan handle and Big Bend area of Florida. This would reduce the cost of delivery to the various

projects in region and reduce the cost of each Channel Marker Micro-Habitat.

A crew of 4 could work their way across the west coast of Florida installing the micro habitats over a period of 3 to 10 years. By the 10 year mark local governments would maintain and continue to use the micro habitats on channel markers as they are changed out.

Reef Innovations would provide the product and quality control of the project.

Estimated Project Costs *(Describe the estimated costs of the project, including any assumptions for contingency and ongoing operations/maintenance. Identify other secured funding sources such as matching funds, in-kind contributions or state/federal dollars. In addition, if possible, complete and submit the Cost Appendix Sheet associated with this Form):*

Deployment cost are based on the distance of travel, depth of water and side of Reef Ball man hours involved. Annual cost will not exceed the estimate and will depend on actual deployments. By awarding a reduced annual amount you only reduce the quantity of Reef Ball Micro-Habitats.

See the attached Reef Ball Price Sheet for Module Costs.

Other Funding *(Indicate if the project is submitted for any potential funding or if it may be used to leverage additional funding, if so please describe the funding source [e.g. State/Federal Grants]):*

This project would be funded as a regional project using Pot 2 \$.

Additional funding could come from the Counties Artificial Reef Program if they already have funds, or if they will to continue after the project funds are used.

Technical Feasibility *(Describe the technologies involved and any relevant past experience or proven success with similar projects):*

The technology for this project has been tried and tested in Sarasota Florida. There are three options; 1 replacing the channel marker as a regular maintained schedule, 2 lowering the Reef Ball over an existing Channel marker, or 3 using a split Reef Ball, and assembling it around a channel marker or Piling.

Environmental Benefits *(Describe the nature, magnitude, and timing of any environmental benefits attributable to the project. If possible, describe potential environmental performance measures [e.g. pollutant reduction]. Please address any potential environmental impacts*

associated with implementing or maintaining the project [e.g. loss of a habitat or conversion of habitat from one type to another during implementation]):

Reef Balls have a proven track record for providing habitat for juvenal fish, it is also a great strata for attachment of oysters, corals or crustaceans.

The nature, magnitude, and timing of any environmental benefits

This project will benefit the environment from the moment that first Channel Marker Reef Ball Micro-Habitat is placed in the water for 100's of years.

Economic and Social Benefits *(Describe the economic and social benefits including those related to the project's improved ecosystem services and any estimates on jobs created or preserved):*

By placing the Reef Ball Micro-Habitat on Channel Marker, we are providing great additions to the overall health of our coastal ecosystems; this is a great way to provide more habitats without over loading a specific spot.

There is a direct relationship of increased habitat to the enjoyment of recreational fishing.

As coastal waters rise, and sea temperatures increase the micro-habitat could evolve to a platform for corals and tropical fish.

Community Resilience *(Describe if the project assists Florida's ability to anticipate, withstand, or recover from hazards or threats [e.g. hurricane preparedness, establishing living shorelines]):*

The additional structural support to on the piling or channel marker provides more protection from storm impacts.

The additional of micro communities over a wide area helping to develop a living shore line providing diverse communities over a wide area will help in the recover from damage by hurricanes or other unforeseen disasters.

Conflicts or Complements to Existing Efforts *(Describe any ongoing activities in the project implementation area, if the project is part of another plan, and why the project does or does not interfere with that work. Please consider how the project may complement existing local, regional, and state efforts/plans/objectives):*

No conflicts to existing efforts. The Channel Marker Reef Ball Micro-Habitat will complement many of the counties artificial reef plans. Providing habitat for juvenal fish is high on the list in importance to most counties. In estuary environments the benefit will be more hard bottom surface for the attachment of oysters and provide filtration of the waters.

Complies with Federal, State, Local, and Tribal Laws/Regulations *(Describe any concerns*

or potential conflicts):

None know

Readiness for Implementation *(Describe if the project has had any design or permitting work started or completed attach permits or design work]. Please address any issues that may delay start or finish of the project):*

This project is going on in Sarasota currently. Reef Innovations could begin expansion of the Channel Marker Reef Ball Micro-Habitats immediately. Permitting requires a diagram of the Channel Marker with the Reef Ball Micro-Habitat be approved by the Coast Guard.

Hopefully an expedited permit process can be established for retrofit of existing Channel Markers, with a Reef Ball.

Public Acceptance *(Describe any known or potential public approval or opposition to the project):*

In public meetings I have seen no opposition to the idea of proving micro communities on channel markers.

On April 9, 2013 Wakulla County Restoration Act Committee approved and encouraged the concept.

Sarasota, FL is currently fitting channel markers with a reef ball as part of the replacement process.

Additional Information you wish to provide *(Please include any maps, designs, drawings, photos, or background resources that may assist in completely and accurately understanding the project):*



Cost Appendix Sheet

Cost Item Cost Estimate

Planning

Planning Subtotal:

Construction

Construction Subtotal:

Monitoring

Monitoring Subtotal:

Project Cost

Subtotal:

TOTAL:

Estimated Costs by Year

Year 1 100,000

Year 2 100,000

Year 3 100,000

Year 4 100,000

Year 5 100,000

Year 6 100,000

http://www.dep.state.fl.us/deepwaterhorizon/files/Project_Submittal_Form_distributed.pdf