

FLORIDA GULF OF MEXICO RESTORATION PROJECT SUBMITTAL FORM

Project Name:

Florida SHIELD (Shoreline Inspection and Environmental Lookout Division) - A monitoring network designed to observe, document, and study persistent residual oiling as a result of the *Deepwater Horizon* oil spill (MC-252).

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

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

The project location primarily targets Gulf of Mexico and back-bay shorelines located in Escambia, Santa Rosa, Okaloosa, and Walton counties which have *Deepwater Horizon* oil impacts to date. Supplemental monitoring will also occur in Bay, Gulf, and Franklin counties which experienced *Deepwater Horizon* oil impacts in the recent past.

*See attached map of project location, which spans Florida SCAT divisions that were established during the *Deepwater Horizon* response. Note: Santa Rosa County shorelines fall within SCAT division FLES3.

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

The Florida SHIELD is a network consisting of employees and volunteers which will monitor residual MC-252 oiling that persistently impacts Florida's shorelines. This residual oiling continues to pose an environmental risk as some studies suggest that submerged oil found off the Gulf Coast may not be as chemically weathered as previously thought. (See attached research brief from the University of Auburn, authored by Clement, Hayworth, Mulabagal, et al.) In addition to monitoring residual oil impacts, the SHIELD will collect other relevant beach metrics to study the transport of residual oiling and the mechanisms that cause the oil to continue to surface to this day.

The *Deepwater Horizon* oil spill response officially ended in Florida as of June 2013. Contractors Dominic Marcanio and Joey Whibbs currently spearhead a post-response monitoring program operating under the Florida Department of Environmental Protection (FDEP) Office of Emergency Response. A continuation of the Shoreline Clean-up Assessment Technique (SCAT) program, the post-response monitoring program implemented by the contractors has adopted and continued the known methods and techniques of the SCAT process. Throughout all three years of the active *Deepwater Horizon* response, the SCAT program analyzed the distribution of oiling and ensured that shoreline cleanup endpoints were met by the responsible party. This was accomplished as a multi-agency effort between the FDEP and its contractors, the United States Coast Guard (USCG), and British Petroleum (BP) representatives. The SCAT technique utilizes in-place shoreline segment waypoints, approved beach access points, oiling assessment techniques, shoreline surveying techniques, GPS locating and mapping, best management practices (BMPs), etc.

Currently, in the post-response period, when MC-252 oiling is observed, the US Coast Guard and BP will utilize the National Response Center (NRC) process to document, track and remove any observed MC-252 oiling. If a report is filed with the NRC, USCG personnel are dispatched to the area of interest. If the material is determined to be consistent with MC-252 oiling and is of significant quantity, the Coast Guard will deploy on-call BP contractors to the site and remove the material. However, the NRC process is contingent upon proactive efforts; efforts including locating the material, proper identification, and most importantly filing the report.

Between July and December of 2013 (over three years after the initial *Deepwater Horizon* incident), the post-response program implemented by the contractors has documented over 21,000 MC-252 tarballs/surface residue balls (SRBs), all of which have been reported to the USCG-manned National Response Center. Over 215 pounds of MC-252 oiling have been removed from the beach through the NRC process as a result of these proactive monitoring efforts. On an average survey day, the contractors find over 224 MC-252 SRBs and 2.3 pounds of MC-252 oil product. However, this amount represents a very small fraction of the oiling affecting Florida's shorelines since each day's survey covers less than 0.4% of Florida's shoreline that was impacted by the *Deepwater Horizon* spill.

Unfortunately, FDEP's post-response monitoring program will end in 2014, ultimately placing the burden of locating and reporting residual oiling on individual citizens. The contractors who implemented the existing post-response monitoring program are ready to continue monitoring Florida's beaches and will expand the program into a multi-county effort with the help of volunteers once funding is secured.

If approved for funding via RESTORE, the Florida SHIELD will continue to utilize the above mentioned post-response monitoring processes. This will include scheduled post-response surveys using SCAT methodology, documentation of shoreline oiling, the filing of NRC reports and the removal of residual MC-252 oiling through the NRC process.

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):*

Total Project Costs: \$ 1,950,500

Year 1: \$ 486,500

Year 2: \$ 366,000

Year 3: \$ 366,000

Year 4: \$ 366,000

Year 5: \$ 366,000

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]):*

Added value of volunteer service over the course of the project: approximately \$ 575,640*

*Based on approximately 20 volunteers at 5 hours per week over five years rated at the current value of \$22.14 per hour of volunteer service. This figure represents a conservative estimate of the number of volunteers and hours which can be expanded upon greatly.

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

An existing post-monitoring program is currently implemented by the contractors under the Florida Department of Environmental Protection's Office of Emergency Response. However, FDEP's post-response monitoring program will end in 2014. Given the prevalence of residual oiling to this day, along with the lack of other monitoring efforts in 2014, the contractors are ready to continue monitoring Florida's shorelines once funding is secured.

Given the extensive experience of the contractors in the field of shoreline assessments and monitoring, along with the transferability of these proven methods, this project is immediately shovel-ready. |

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]):*

The primary environmental benefit provided by the project is long-term post-*Deepwater Horizon* oil spill response monitoring data which will be used to study the long-term distribution and re-appearance of MC-252 oiling. The Florida SHIELD will document the presence, amount, and location of residual oiling, collect GPS coordinates and photographs, and gather other relevant information during surveys. All data collected will be made available to educational institutions and local government agencies through education and outreach efforts.

As an additional benefit of the monitoring efforts, residual oiling will continue to be removed from Florida's shorelines through the NRC process, thus reducing the level of oiling negatively affecting Florida's shorelines and its visitors.

Little to no environmental impacts are expected from this monitoring project. All monitoring activities will be conducted by foot, meaning the SHIELD will have no more of an environmental impact than the average beach visitor. Personnel will access shorelines via approved entry and exit points avoiding any and all vital natural resources. In addition, training will be provided to educate and familiarize volunteers, with respect to best management practices, to minimize impacts and avoid the disturbance of any wildlife or vegetation while conducting monitoring activities. Moreover, this monitoring program will provide the opportunity to assist other environmental programs in the way of communicating field observations such as turtle nests, migratory bird nests, injured wildlife, etc. to the proper groups. There are also several opportunities to collect other environmental data, including but not limited to: wildlife information (species, count, mortalities, etc.); shoreline elevation profiles; and early awareness of localized events such as fish kills, algal blooms, red tide, pollution impacts, etc.

Additionally, with Army Corps of Engineers (USACE) beach re-nourishment projects expected to occur along Pensacola Beach and in the Perdido Key area in the near future, the Florida SHIELD offers a unique opportunity to provide real-time monitoring during the ongoing renourishment project.

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 keeping Florida's beaches clean and oil-free, the Florida Panhandle tourism industry will continue to be healthy and vibrant. By proactively documenting residual oiling and removing the oil through the NRC process, Florida's shoreline will be restored to its pre-spill state, preserving the reputation of Northwest Florida's beaches as a world-class travel destination.

By developing a large-scale network of volunteers to proactively survey beach segments for MC-252 oil impacts and other beach metrics, the potential for environmental education and public outreach is immense. Each person volunteering for the program will learn about Florida's coastal environment and will gain valuable training regarding oil spills, beach morphology, and wildlife identification while developing a strong sense of environmental stewardship in the process. Additionally, by partnering with local universities, college students can gain valuable field experience while also networking with professionals in the environmental community.

Two existing jobs will be preserved, while additional new positions will be created as the SHIELD expands throughout Northwest Florida.

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]):*

Establishing a proactive beach monitoring network of employees and volunteers forms a SHIELD around Florida's coastline, giving Florida the opportunity to continue to rehabilitate in the wake of such a significant spill. It also provides eyes in the field in the event of re-oiling, whether residual or post-storm event. Again, as a cooperative effort, it also provides the opportunity to communicate other relevant field observations to the proper organizations. More importantly, the Florida SHIELD will collect baseline data which will develop a snapshot of current conditions for comparison to post-storm or post-event assessments.

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):*

As mentioned above, the SHIELD complements the existing FDEP beach monitoring program implemented by the contractors, which will conclude in 2014. Without this proactive monitoring network in place, residual oiling from the *Deepwater Horizon* spill will continue to tarnish northwest Florida's shoreline and its reputation as a world-class travel destination. This project is in-line with all local, regional, and state efforts as the monitoring and removal of existing and potential shoreline oiling is in best interest of the entire state.

Complies with Federal, State, Local, and Tribal Laws/Regulations *(Describe any concerns or potential conflicts):*

Complies with all Federal, State, Local, and other applicable regulations by using methods approved during the active *Deepwater Horizon* response and implementing best management practices (BMPs) established therein.

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):*

The current FDEP Beach Monitoring program will remain active until funding expires in 2014. Dominic Marcanio and Joey Whibbs have extensive experience monitoring Florida's beaches using Shoreline Cleanup Assessment Technique (SCAT) methods throughout both the active DWH response and the post-response time period. The project is immediately shovel-ready once funding is secured.

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

Based on the positive partnerships and solid working relationships established between the contractors under FDEP, Escambia County, the National Park Service (Gulf Islands National Seashore), and Pensacola Naval Air Station, the SHIELD will continue these partnerships and reach out to local volunteers to assist with the monitoring efforts.

Additionally, The University of West Florida (UWF) has expressed verbal interest in its students participating in monitoring activities to gain valuable field experience. By maintaining those partnerships and reaching out to volunteers and the local university system there are several opportunities for public outreach, education, and environmental stewardship.

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):*

Also attached, please find:

1. A PDF map of the project location, which spans Florida SCAT divisions established during the Deepwater Horizon oil spill response from Escambia to Franklin Counties.
2. A research brief published by the University of Auburn describing the lack of chemical weathering of submerged MC-252 oiling.
3. Photos of residual MC-252 oiling impacting Florida's coastline mid-to-late 2013.