

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 direct 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):*

The Geodysey Group, LLC.

Dominic Marcanio

DMarcanio@gmail.com

(850) 380-1656

Joey Whibbs

JoeyWhibbs@gmail.com

(850) 324-3281

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

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

See Exhibit A: an attached project location map which displays Florida's Shoreline Clean-up Assessment Technique (SCAT) divisions and segments established during the initial *Deepwater Horizon* spill response. (Note: segments located along the shorelines of Santa Rosa County fall within SCAT division FLES3).

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

The Florida SHIELD is a monitoring network consisting of employees, student interns and volunteers that will observe and document residual Mississippi Canyon Block 252 (MC-252) oiling from the *Deepwater Horizon* oil spill as it continues to impact Florida's shorelines.

As a result of the British Petroleum (BP) *Deepwater Horizon* oil spill, Florida's shorelines experienced impacts in the form of tarballs, mousse, tarmats, etc. In an effort to assess this impact and remove the oiling a large scale spill response was implemented including the Shoreline Clean-up Assessment Technique (SCAT) program. The SCAT program utilized Federal, State, Responsible Party, and support personnel to conduct initial oiling distribution assessments within pre-delineated shoreline segment waypoints and continued to monitor these areas until predefined endpoints were met. This was accomplished using approved beach access points, oiling assessment techniques, shoreline surveying techniques, GPS locating and mapping, and a multitude of best management practices (BMPs). This official United States Coast Guard (USCG) led response ended as of June 2013, even though several areas were signed out of the active response by exception even though they still exhibited persistent oiling.

With the closing of this official response the mechanism for reporting MC-252 oiling transitioned back to the conventional USCG National Response Center (NRC). When MC-252 oiling is observed, an NRC report must be filed with the NRC before the USCG will deploy personnel to investigate the material. 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. The major drawback to the NRC process is that it is contingent upon proactive efforts; efforts including locating the material, proper identification, and most importantly filing an NRC report. Without the filing of an NRC report the residual MC-252 material will not be addressed. However, with the Florida SHIELD in place, residual MC-252 oiling will once again be properly documented and addressed.

With the conclusion of the *Deepwater Horizon* oil spill response, significant quantities of residual MC-252 oiling remained on Florida's beaches. Dominic Marcanio and Joey Whibbs spearheaded a post-response monitoring program operating under the Florida Department of Environmental Protection's (FDEP) Office of Emergency Response. Post-response monitoring activities began in June 2013 and may continue until December 2014. A continuation of the SCAT program, this program adopted the known methods and techniques of the SCAT process, including the NRC reporting process. This program facilitated the removal of approximately 52,870 Surface Residue Balls (SRBs) totaling 3,968 lbs of oiled material that was not addressed in the active response.

Unfortunately, FDEP's post-response monitoring program has been scheduled to end multiple times since its inception in June 2013. As of June 2014, the FDEP monitoring program is funded through the taxpayers and not the BP grant that the state received years ago. The continued finding and documentation of oiling along with increased public awareness has kept the "can" kicking down the road. The latest estimate was that the FDEP monitoring effort would end December 2014, ultimately placing the burden of locating and reporting residual oiling on individual citizens. Instead, the Geodysey Group can provide an educated, confident, and appropriate level of attention to the issue of continued oiling from the BP *Deepwater Horizon* Oil Spill.

If approved for RESTORE funding, the Florida SHIELD will continue to monitor the existing segmented sections of Florida's shorelines stretching from Escambia county to Gulf county using improved SCAT methodology. Providing multi-year funding would enable a more robust monitoring effort with highly experienced personnel and invaluable education and training for the volunteering community. As a result of that funding, taxpayers will no longer be responsible for monitoring the recurring oil impacts from the *Deepwater Horizon* oil spill and BP will again be held accountable.

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 established by the US Department of Labor. This figure represents a conservative estimate of the number of volunteers and volunteer hours this project will accumulate.

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 the FDEP's Office of Emergency Response (OER). However, at latest estimate, FDEP's post-response monitoring program will end in December 2014. Given the fact that consistent residual oiling continues to impact shorelines to this day, and with the imminent conclusion of FDEP's monitoring program, it is imperative that the Florida SHIELD assume responsibility for these monitoring efforts.

The highly experienced personnel of the Geodyssey Group have greatly improved upon the shoreline cleanup and assessment technique. With our unique local knowledge and

experience with the dynamic shoreline of northwest Florida, we have been able to improve SCAT by targeting areas based on weather conditions, expanding survey areas into the swash zone and nearshore waters, and mitigating previous restrictions to adequately and efficiently document and remove the BP oil. Our expansion into the swash zone and nearshore waters has illuminated the presence of significant deposits of the BP MC-252 oil in an area that was previously overlooked during the active response because traditional SCAT methodology only considered the dry shoreline, not the swash zone.

While spearheading the post-response monitoring program and pioneering a new repertoire of improved SCAT methods, Marcanio and Whibbs found an average of 226 tarballs and 10.78 pounds of residual MC-252 material each survey day. After conducting over 400 shoreline surveys and collecting extensive sets of data, it is clear that residual oiling levels are not declining but instead are remaining consistent, especially with fewer and fewer efforts to address that oiling.

Thanks to their improved SCAT methods, Marcanio and Whibbs discovered a large submerged oil mat (SOM) at Fort Pickens on Pensacola Beach in February 2014. The NRC process was used to notify the USCG and BP, but when they arrived on scene, clean-up contractors were unable to recover the mat due to safety restrictions. Rather than letting the mat become buried again, Mr. Marcanio and Mr. Whibbs proactively began manually removing the material themselves. As a result of their cleanup efforts, over 1,400 pounds of MC-252 mat material was removed. For more detail on the SOM discovery, see the attached beach monitoring report from that day authored by Marcanio and Whibbs (Exhibit B).

As a result of those findings, The Escambia County Board of County Commissioners awarded both Marcanio and Whibbs with an official proclamation for their outstanding efforts to go above and beyond the call of duty to document and remove thousands of pounds of pollution from the environment.

Due to the unusually 'fresh' nature of the mat material, sampling was later conducted on the mat discovered in February 2014. In March 2014, follow-up sampling near the mat location confirmed the presence of one carcinogenic polycyclic aromatic hydrocarbon (PAH), benzo(a)anthracene. For more detail, see the attached sampling results (Exhibit C). Similar findings were also documented in a research brief published by the University of Auburn (see Exhibit D).

With more SOMs potentially lurking in near-shore waters, the Florida SHIELD is needed to protect Florida's citizens and visitors from being exposed to this residual MC-252 material. With their unique expertise and improved SCAT methods, Geodyssey Group personnel are ready to create such a proactive network.

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 this 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. Only by continuing this effort will the responsible party be held accountable for these continued impacts. 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. By removing a lingering, persistent pollutant source, nearshore water quality will improve as a result of these monitoring and collection efforts.

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 access points avoiding any impacts to 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.

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.

Furthermore, 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. Additionally, by partnering with local universities, college students can gain valuable field experience while also networking with professionals in the environmental community.

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 recover from such a significant spill. It also provides eyes in the field in the event of re-oiling, whether residual, post-storm event, or from dredging or beach nourishment. 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 any of these renourishment projects. In early 2014, Marcanio and Whibbs found evidence of the relocation and deposition of MC-252 oiling to a spoil area previously unoiled as a direct result of dredging activities (see Exhibit E).

Given the eventual possibility of a major storm or hurricane, significant re-oiling may occur. The Geodysey Group will develop a comprehensive monitoring plan to address any residual MC-252 oiling that could be deposited after a major storm event. In the event of such a storm, the Geodysey Group will collect data before and after the storm to both study and address any residual oiling that may occur.

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):*

This project complements all local, regional, and state efforts since the monitoring and removal of existing and potential shoreline oiling is in the best interest of the entire state.

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

The Florida SHIELD 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 is funded by the taxpayers as of June 2014 and the program is set to expire December 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. By building off of the improved SCAT methods pioneered by Marcanio and Whibbs in the post-response period that led to significant discoveries of submerged oil mats, the Florida SHIELD can provide the appropriate level expertise and dedication needed to address this persistent problem.

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.

When given the opportunity Mr. Marcanio and Mr. Whibbs have gone above and beyond expectations and received recognition from citizens, county, state and federal government officials. In March 2014, Marcanio and Whibbs received official proclamations from the Escambia County Board of County Commissioners as a result of their dedicated shoreline monitoring efforts and their commitment to the recovery of the Gulf Coast.

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):*

Appendix

- Exhibit A: PDF map of the project location, which displays Florida SCAT divisions established during the Deepwater Horizon oil spill response from Escambia to Franklin Counties.
- Exhibit B: FDEP Beach Monitoring Reports from February 27-28, 2014 when a large submerged oil mat (SOM) was discovered by Marcanio and Whibbs.
- Exhibit C: Sampling results from the SOM discovered by Marcanio and Whibbs
- Exhibit D: A research brief published by the University of Auburn describing the lack of chemical weathering of submerged MC-252 oiling.
- Exhibit E: FDEP Beach Monitoring Reports from February 7 and April 24, 2014 when Marcanio and Whibbs discovered MC-252 material deposited from a nearby dredging operation.
- Exhibit F: Graphs that describe the consistent trend of residual MC-252 oiling in Northwest Florida