

Natural Resource Damage Assessment (NRDA)

Restoration Project Information Sheet

A General Information

<i>Organization</i> Santa Rosa County Board of Commissioners			
<i>Contact Name (First Last)</i> Sheila Harris		<i>Title</i> Grants & Special Projects Coordinator	
<i>Address</i> 6495 Caroline St., Suite H		<i>City</i> Milton,	<i>State</i> FL
		<i>ZIP</i> 32570	
<i>Phone Number</i> 850-983-1848	<i>ext.</i>	<i>Email</i> sheilah@santarosa.fl.gov	
<i>Organization Website</i> www.santarosa.fl.gov			

B Project Information

<i>Project Name</i> Conservation, Restoration, and Education on Navarre Beach			
<i>Location (e.g. John Smith National Wildlife Refuge)</i> Navarre Beach Marine Science Station, Navarre Beach Park, Navarre Beach, FL			
<i>State(s) (Use 2-letter abbreviations separated by commas)</i> FL		<i>County/Parish</i> Santa Rosa	<i>Watershed/Basin</i> Gulf of Mexico, Santa Rosa Sound
<i>Latitude (decimal degrees)</i> -86.85768	<i>Longitude (decimal degrees)</i> 30.38322	<i>Project Size (Choose one)</i> miles 50 acres tons	<i>Affected Area</i> 112 acres

C Project Description

Please provide more information about the proposed project. (Limit 2,750 characters.)

The goal of this multidisciplinary, inquiry based project is to expand programming at the Navarre Beach Marine Science Station to provide field-based experiences to students and community members impacted by the Deepwater Horizon Oil Spill. In this unique program, high school students act as peer teachers. In addition to educating the public, student are required to complete a service learning project focused on beach restoration (planting of Bitter Panicum (*Panicum amarum*) in Navarre Park) At the Navarre Beach Marine Science Station, we pair dual enrolled students with younger students to provide quality Science, Technology, Engineering, and Mathematics (STEM) education programs relevant to the Gulf of Mexico. The project uses the Santa Rosa Sound and Gulf of Mexico to educate students about the environmental sciences and relating scientific concepts to real-world issues surrounding ecosystem sustainability and conservation. Topics taught at the various programs include: the Gulf of Mexico watershed, oil spill education, habitats, wildlife, fisheries management, marine debris, hypoxia, artificial reefs, ocean exploration, water safety and invasive species. In addition to quality programming, teacher professional development programs will be offered to area teachers with an emphasis placed on science resources related to Gulf watershed issues. Programs to include:

- Professional Development related to implementing a classroom-based monitoring program to include Build a Buoy program (BOB)
- Information about wetlands-purpose, value, why fragile, and action items outlining what people can do to protect and conserve this natural resource
- Develop more hands-on activities demonstrating the impact of oil on marine life, predicted impacts to the food web, ecosystem and individual species
- Assistance in the purchasing of equipment to conduct inquiry based lessons on water quality, and biodiversity (e.g. GPS, sensor packages with temperature, salinity, pH, and dissolved oxygen probes)
- Provide a website (www.navarresciencestation.org) to host student-collected data
- Onsite visits to schools from environmental peer educators to help host 'public-type' meetings with students
- Professional Development for early career teachers of marine science working inland-need to learn about basic geology, coastal processes, and oil and gas exploration

See attached for additional information.

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Restoration Project Information Sheet *(continued)*

D Project Type(s)	<i>(Check all that apply)</i>		
	<input checked="" type="checkbox"/> Restoration	<input type="checkbox"/> Debris Removal	<input type="checkbox"/> Maintenance/Management
	<input type="checkbox"/> Protection	<input type="checkbox"/> Land Acquisition	<input checked="" type="checkbox"/> Education

E Project Habitat(s)	<i>(Check all that apply)</i>		
	<input type="checkbox"/> Upland	<input type="checkbox"/> Marine/Estuarine Wetlands	<input checked="" type="checkbox"/> Beach/Dune
	<input type="checkbox"/> Riverine	<input type="checkbox"/> Freshwater Wetlands	<input type="checkbox"/> Subtidal (Nearshore/Offshore)

F Resource Benefit(s)	<i>(Check all that apply)</i>		
	<input type="checkbox"/> Marine Mammals	<input type="checkbox"/> Shellfish	<input type="checkbox"/> Water Column
	<input type="checkbox"/> Birds	<input type="checkbox"/> Terrestrial Wildlife	<input type="checkbox"/> Sediment/Benthos
	<input type="checkbox"/> Reptiles/Amphibians	<input type="checkbox"/> Corals	<input checked="" type="checkbox"/> Shoreline
	<input type="checkbox"/> Fish	<input type="checkbox"/> Vegetation	<input checked="" type="checkbox"/> Human Use (Recreational, Cultural)
Will the project directly benefit State- or Federally-listed species? If so, please list them. If not, please indicate N/A.			

G Project Status	Property/Resource Acquisition	Time to Implementation
	Project Planning/Design N/A	90 days
	Project Permitting.	Time to Project Completion
		One Year
Is this project included under a regional or statewide plan? If so, please list:		

H Project Costs	Estimated Cost	Funding Available
	\$61,450	\$21,000

I Project Partners	Partner 1 Organization	
	Santa Rosa County School District - Navarre High School - Navarre Beach Marine Science Station	
	Partner 1 Contact	Partner 1 Involvement
	Charlene Mauro (850-936-6080)	Project Lead
	Partner 2 Organization	
	University of Florida IFAS Sea Grant and 4-H Extension	
	Partner 2 Contact	Partner 2 Involvement
	Chris Verlinde (850) 623-3868	Co-Lead
	Partner 3 Organization	
	Various others (see attached information sheet)	
	Partner 3 Contact	Partner 3 Involvement

Disclaimer:

The submission of project information does not guarantee project funding. Projects will be evaluated using criteria identified in OPA, NEPA, implementing regulations, and related laws. Selection and funding determinations will be made by the Trustee Council.

A. General Information

Name Charlene Mauro, Chris Verlinde

Title Director, Navarre Beach Marine Science Station, UF/IFAS Fl. Sea Grant Extension

Organization Navarre High School
Address 8600 High School Blvd
Address (cont.) Navarre, Fl 32566
Work Phone (850) 936-6080
FAX (850) 036-6088
E-mail mauroc@mail.santarosa.k12.fl.us
Website Address www.navarresciencestation.org

B. Project Information

Project Title Conservation, Restoration, and Education on Navarre Beach

Project Location Navarre Beach Marine Science Station, Navarre Beach, Florida

Watershed Gulf of Mexico, Santa Rosa Sound

Project Size Approx 50 acres

Affected Area (size of Navarre Beach Park in acres)

C. Project Description

The goal of this multidisciplinary, inquiry based project is to expand programming at the Navarre Beach Marine Science Station to provide field-based experiences to students and community members impacted by the Deepwater Horizon Oil Spill. In this unique program, high school students act as peer teachers. In addition to educating the public, student are required to complete a service learning project focused on beach restoration (planting of Bitter Panicum (*Panicum amarum*) in Navarre Park) At the Navarre Beach Marine Science Station, we pair dual enrolled students with younger students to provide quality Science, Technology, Engineering, and Mathematics (STEM) education programs relevant to the Gulf of Mexico. The project uses the Santa Rosa Sound and Gulf of Mexico to educate students about the environmental sciences and relating scientific concepts to real-world issues surrounding ecosystem sustainability and conservation. Topics taught at the various programs include: the Gulf of Mexico watershed, oil spill education, habitats, wildlife, fisheries management, marine debris, hypoxia, artificial reefs, ocean exploration, water safety and invasive species. In addition to quality programming, teacher professional development programs will be offered to area teachers with an emphasis placed on science resources related to Gulf watershed issues. Programs to include:

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Who is your target audience for this project?

The target audience is grades 3-12, general public, and educators

What will be the outcome or result of this project?

- Emphasize the importance and power of individual responsibility in protecting oceans for the future, by engaging participants in Gulf of Mexico issues.
- Program participants will identify and adopt one behavior change that will promote the health of the Gulf of Mexico.
- To increase peer teachers scientific inquiry, literacy, and critical thinking skills through experiential learning activities and a peer focused evaluation team.
- Provide field experiences to help students and community members understand how the Gulf of Mexico and humans are inextricably interconnected.

How will you monitor or track your program's progress and success

School programs will be evaluated using pre and post test data to determine knowledge gain and 1 behavior change. Student peer teachers will participate in a growth survey to determine changes in attitude, leadership and teaching skills. Programs offered to teachers will be evaluated and refined through a participant satisfaction survey and follow-up discussions with participants after camps. An external evaluator will analyze

the following: increase in knowledge, behavior change, peer teacher evaluations, teacher evaluations and provide program improvement data.

Timeline

Spring & Summer 2011	Continue school programs led by peer teachers attending classes at the Navarre Beach Marine Science Station, begin Saturdays by the Sea, Program Evaluator site visit
Fall 2011 – Spring 2012	Train new peer teachers, teacher professional development programs, site visit, resume school programs, Coastal Encounters, Evaluation of Results of Program, beach restoration project

D. Project Types

Education & Restoration

E. Project Habitat

Beach / Dune

F. Resource Benefits

Shoreline & Human Use

G. Need Help on this one

H. Project Cost please double check numbers

Estimated Cost: \$61,450

Funding Available \$ 21,000

Cost Categories	Requested \$	Total \$	Any other funding you have for this project – amount here?
Travel	\$5,000	\$6,000	\$1,000 Internal funds
Equipment	\$10, 600	\$13,600	\$1,000 Toyota Tapestry \$2,000 Gulf of Mexico

			Alliance grant
Personnel	\$8,000	\$11,000	\$3,000 Tourist Development Council grant
Supplies	\$7,800	\$14,800	\$5,000 Gulf of Mexico Alliance grant, \$2,000 Fish Florida
Other	\$8,100	\$12,100	\$4,000 Internal Funds
Indirect @ 10%	\$3,950	\$3,950	
Grand Total	\$40,450 (Requested)	\$61,450	

Budget Description

Project funding will support one part time employee for the 8-month project duration (\$1,000 per month) to develop and implement workshops and present project successes at conferences. Travel for project director and facilitators at state travel rates has been estimated at \$5,000 (travel time may vary in length depending on workshop location). Equipment (\$10,600) funds will update technology used in all programs. \$5,800 is requested for supplies to include field guides, aquaculture equipment, lab consumables, and promotional items. Other (\$8,100) funds are requested to cover expenses for publication costs of a student created children's book about the Deepwater Horizon Oil Spill (\$5,000) and purchase of Bitter Panicum (*Panicum amarum*) for planting as part of service learning projects focusing on beach nourishment.

I. Project Partners

The Gulf of Mexico Alliance has identified priority issues that are regionally significant and can be effectively addressed through increased collaboration among stakeholders and environmental education. This project is designed with these concepts in mind. This project will establish a strong working partnership between the Santa Rosa County School District and Santa Rosa County who recently donated the Marine Science Station to the students of our area.

Our community supports this exciting opportunity to educate tomorrow's leaders. Other partners in this project include:

- Santa Rosa County School Board
- Santa Rosa County Board of County Commissioners

- Fish Florida
- Toyota Tapestry
- University of Florida IFAS Sea Grant and 4-H Extension
- University of West Florida
- Pensacola State College
- Pensacola Bay Watershed Environmental Education Team
- Bay Area Resource Council
- Aqua Farms - Florida's Gulfarium
- Environmental Protection Agency