

3.3 Education and Outreach Action Plan

Background

The level of awareness, understanding, and appreciation of FGBNMS varies greatly among users and other members of the public, and in many cases is inadequate to produce changes in individual attitudes, behaviors, or community decision making processes that affect the health of sanctuary resources.

Since sanctuary designation, education and outreach efforts have focused heavily on two primary audiences: K-12 educators (and, hence, their students) and recreational divers. These audiences were given high priority as a result of staff analysis and constituent input. To date, educator workshops have trained between 500 and 1,000 teachers. Since each classroom teacher reaches between 20 and 150 students each year and each informal venue educator reaches thousands of students each year, this was deemed the most efficient and effective approach to disseminating sanctuary messages. Education and outreach programs have also targeted additional sanctuary users and the general public by taking advantage of specific opportunities such as working with public aquariums interested in developing Flower Garden Banks exhibits.

The progress made in addressing K-12 educators/students and recreational divers needs to be sustained while implementing programs that address new priority issues and target additional audiences, especially direct users of the sanctuary. One of the mandates of the NMSA is to enhance public awareness, understanding, and appreciation of the marine environment; therefore it is important to raise general visibility of the sanctuary and increase public awareness.

Purpose

The purpose of the Education and Outreach Action Plan (EOAP) is to use education and outreach to enhance effective management of the sanctuary by cultivating a knowledgeable public that progresses from simple awareness to active stewardship of FGBNMS and the regional marine environment. The EOAP contributes to the attainment of FGBNMS *Goal 3*—enhance and foster public awareness, understanding, appreciation, and stewardship of FGBNMS and the regional marine environment.

Strategies and Activities

The EOAP contains four strategies and associated activities that focus on developing programs to address specific management needs and target audiences, increasing general public awareness and knowledge of the sanctuary, building internal processes and capabilities, and cultivating relationships and networks with appropriate partners and media contacts.

EO.1 – Broaden public awareness of the sanctuary and the regional marine environment.

- Activity 1.1 Build a presence in the community.
- Activity 1.2 Develop programs to reach previously underserved audiences.
- Activity 1.3 Use print and broadcast media to increase public awareness.
- Activity 1.4 Work with informal education venues, such as aquariums and museums, to create exhibits and associated programs about the sanctuary.

EO.2 – Improve understanding of the sanctuary and its resource protection issues.

- Activity 2.1 Develop and implement programs to inform stakeholders about science activities and changes in sanctuary regulations.
- Activity 2.2 Enhance K-12 education programs.

EO.3 – Increase public support and stewardship of the sanctuary.

- Activity 3.1 Cultivate strategic partnerships.
- Activity 3.2 Develop a strong volunteer program.
- Activity 3.3 Implement NOAA's Blue Star Program.

EO.4 – Enhance communication through effective use of technology and products.

- Activity 4.1 Continue to build a dynamic and up-to-date internet presence.
- Activity 4.2 Take advantage of emerging technologies.
- Activity 4.3 Continue to use traditional products (brochures, posters, videos).

EO.5 – Evaluate effectiveness of education and outreach efforts.

- Activity 5.1 Identify and implement appropriate evaluation tools.
- Activity 5.2 Develop new evaluation tools as needed.

EO.1 Broaden public awareness of the sanctuary and the regional marine environment.

The sanctuary's remote location makes it difficult for land-based communities to have a sense of place and stewardship for the sanctuary. The staff and physical facilities are the closest exposure most people will ever have to sanctuary resources.

Activity 1.1 Build a presence in the local community.

FGBNMS will sponsor and participate in community events such as NOAA Ocean Discovery Day, local Earth Day festivals and coastal expos, to help create a sense of place for the sanctuary within the local community. Efforts over the next five years will focus primarily on establishing a strong presence in the Galveston Island community, where the sanctuary office is located, and nearby areas.

In addition, during the next five years, the education outreach team will develop a concept and implementation plan for a Flower Garden Banks National Marine Sanctuary visitor center in Galveston, Texas. For the majority of citizens who will never visit the sanctuary in person, a visitor center will provide a physical location where they can experience the wonders of the sanctuary virtually.

Activity 1.2 Develop programs to reach new audiences.

In order to conduct effective education and outreach that moves people from informed citizens to active stewards of the sanctuary and the ocean, FGBNMS staff must identify and characterize the groups of people who use the sanctuary for their recreation and livelihood. Characterization includes knowing who the groups are, how they use the sanctuary, their demographic information, and whether they are a specialized segment of a larger group.

FGBNMS staff will identify and utilize the existing lines of communication used by each user group

to enhance two-way exchange of information. Specific user groups need to be informed about regulations, best practices for particular uses, appropriate avenues for reporting observations and/or incidents, other ways to practice active stewardship of sanctuary resources, and voluntary compliance with sanctuary and other Federal regulations. Two-way exchange of information involves also receiving feedback regarding sanctuary practices and individuals reporting observations made during their visits to the sanctuary. FGBNMS staff will develop programs to target specific user groups using these concepts.

Activity 1.3 Use print and broadcast media to increase public awareness.

To date, efforts to engage the media have been inconsistent and focused on special events. During the next five years, sanctuary staff will work with the ONMS media coordinator to update the media contact database and develop a media communications plan. This approach will enhance regular communication with the media about the sanctuary. For purposes of this activity, print media includes publications such as newspapers and magazines, both general and special interest (e.g., airline in-flight magazines, SCUBA or fishing magazines), and broadcast media includes television and radio and their affiliated websites.

Activity 1.4 Work with informal education venues, such as aquariums and museums, to create exhibits and associated programs about the sanctuary.

Each year, roughly three million people experience the sanctuary through the exhibits and interpretive signage at five aquariums and zoos throughout the U.S. These include the Texas State Aquarium (Corpus Christi, TX), the Aquarium at Moody Gardens (Galveston, TX), the Audubon Aquarium of the Americas (New Orleans, LA), the Tennessee Aquarium (Chattanooga, TN) and the National Aquarium (Washington, DC). FGBNMS staff will develop an exhibits plan to maintain and update current exhibits and pursue new exhibits with future partners. Details on how this plan would be implemented are in the OAAP. The sanctuary's education and outreach team will also continue to provide professional development and training opportunities for aquarium and zoo staff and volunteers, and support for teacher workshops focused on sanctuary exhibits.

EO.2 Improve understanding of the sanctuary and its resource protection issues.

Sanctuary education and outreach efforts should target two groups: stakeholders and educators. Stakeholders (who are often users) already have awareness and baseline knowledge about the sanctuary, and are ready to continue along the progression toward active stewardship. They have expressed an interest in more information about sanctuary science and management. Training of classroom teachers has traditionally been a mechanism for reaching young people that are not aware of the sanctuary but are the future stewards of our ocean resources.

Activity 2.1 Develop and implement programs to inform stakeholders about science activities and changes in sanctuary regulations.

FGBNMS staff will develop a process for improved internal transfer of science and policy information for the purpose of further dissemination to stakeholders. FGBNMS has a robust research and monitoring program. Similarly, the education team has expertise in interpreting science for general stakeholders. Staff will then use existing programs and outlets to inform the public about ongoing efforts to understand and protect sanctuary resources.

Changes to FGBNMS regulations will affect various user groups. A need exists to target those affected by these changes as they relate to their particular use of the sanctuary. FGBNMS staff will build programs to address priority regulatory issues, such as sanctuary expansion, interactions with wildlife, and pollutant discharge. Emphasis will be placed on developing a program targeting commercial and recreational fishermen. In addition, climate change has been identified as a potential threat to sanctuary resources and efforts will be made to inform stakeholders of the impacts of climate change on sanctuary resources.

Activity 2.2 Enhance K-12 education programs.

FGBNMS will continue to implement programs designed to reach classroom teachers and their students. FGBNMS staff will provide professional development for educators, give presentations to students, and develop education modules and lesson plans about Flower Garden Banks National Marine Sanctuary for K-12 audiences.



Teachers learn to operate an ROV with the help of sanctuary staff during a Science at Sea workshop for educators. Photo: FGBNMS

EO.3 Increase public support and stewardship of the sanctuary.

Stewardship of the sanctuary can be enhanced through increased involvement of partners and volunteers. Sanctuary staff will work to strengthen education and outreach programs focused on assessing and improving these relationships. This strategy focuses on building the networks of people actively involved in sanctuary programs.

Activity 3.1 Cultivate strategic partnerships.

Good working relationships require active maintenance to build on mutual trust, which enhances effectiveness of communication. Such relationships increase opportunities to collaborate with other organizations to achieve mutual objectives. Stakeholders are not limited to those who use the sanctuary directly, but can include non-profit organizations, businesses, professional organizations and others. Sanctuary education and outreach must also establish relationships with international organizations to increase public awareness and understanding of the connections within the larger ecosystem.

FGBNMS staff will conduct a needs assessment by evaluating current partnerships and identifying current programs that would benefit from new partnerships. The staff will also actively seek potential new partners and implement a process for evaluating proposals for partnerships.

Activity 3.2 Develop a strong volunteer program.

Sanctuary staff currently recruits volunteers on an as-needed basis for specific events and tasks. The ONMS staff is currently working to develop policies and guidelines regarding volunteers. Sanctuary education and outreach staff will develop a volunteer program in accordance with those guidelines. The program will include recruitment, training, continuing education, opportunities to practice active stewardship of sanctuary resources, and recognition for service. Two key elements of this program will be to develop a volunteer manual and formalize the volunteer recruitment process.

Activity 3.3 Implement NOAA's Blue Star Program.

The Blue Star program was established by Florida Keys National Marine Sanctuary to recognize charter boat operators who promote responsible, sustainable and educational diving and snorkeling practices. FGBNMS staff will evaluate the possibility of adapting this program for the sanctuary to increase sanctuary stewardship.

EO.4 Enhance communication through effective use of technology and products.

This strategy focuses on finding the right combination of technology and traditional products to meet the information needs of a variety of audiences. We will continue to use the website and traditional products that are effective, but will also expand into newer technologies that will keep the sanctuary relevant in a time of abundant and rapidly available information.

Activity 4.1 Continue to build a dynamic and up-to-date internet presence.

The sanctuary website has grown substantially in recent years. In the next five years, the staff will continue to evaluate usability, assess information organization and make frequent updates to the website. To stay abreast of changes in website technology, the education and outreach team will prioritize staff training opportunities for web development.

Activity 4.2 Take advantage of emerging technologies.

In addition to the Internet, people are turning to emerging technologies as sources of information. Live broadcasts, such as the ONMS Oceans Live telepresence, provide the public with a chance to participate virtually in science expeditions to the sanctuary. Tools such as RSS feeds and social networking sites such as Twitter, Facebook, My Space and Linked-In provide new opportunities to communicate sanctuary information and interact with the public. Virtual meeting software could allow distant stakeholders to participate in more in-depth education opportunities, such as presentations and discussions on special topics. FGBNMS staff will assess and implement emerging technologies for their potential effectiveness in communicating with sanctuary stakeholders. Additionally, training may be needed to effectively implement new technologies.

Activity 4.3 Continue to use traditional products (brochures, posters, videos).

Although many people have turned to technology for their information, many also continue to

depend on more traditional sources, such as brochures and one-page informational sheets. The sanctuary education team will assess the value of current products, update and use those that remain effective, and develop new ones as needed. Some of these products will also be adapted for delivery via the website. Staff will create an easy to read summary of sanctuary regulations, a need expressed by constituents.

EO.5 Evaluate effectiveness of education and outreach efforts.

It is important to evaluate education and outreach programs in order to determine their effectiveness. To date, the ONMS education staff have focused on developing evaluation methods and tools for formal education programs, such as professional development workshops for educators and volunteers. Next, the staff will focus on developing evaluation methods and tools for other types of education and outreach, such as exhibits at aquariums or visitor centers, community events, websites, and radio programs.

Activity 5.1 Identify and implement appropriate evaluation tools.

FGBNMS staff will use existing evaluation methods and tools as appropriate to evaluate current and new programs.

Activity 5.2 Develop new evaluation tools as needed.

As new education and outreach programs are created, new tools and methods for evaluation will be designed to complement them. Existing tools and methods will be used as a spring board for conducting sanctuary-specific evaluations.

Table 5: Estimated Costs for the Education and Outreach Action Plan

Activity	Estimated Cost (\$000)					Total Estimate 5-Year Cost	Priority Level
	YR 1	YR 2	YR 3	YR 4	YR 5		
(1.1) Community presence	5	10	10	10	10	45	High
(1.2) Audience-specific programs	2	2	2	2	2	10	High
(1.3) Print and broadcast media	1	1	1	1	1	5	High
(1.4) Informal education venues	30	50	85	50	85	300	Medium
(2.1) Outreach on science and changes in regulations	2	3	5	5	5	20	High
(2.2) K-12 education	2	3	5	5	5	20	Medium
(3.1) Strategic partnerships	2	2	2	2	2	10	Low
(3.2) Volunteer program	2	4	6	8	10	30	High
(3.3) Implement NOAA's Blue Star Program	1	1	2	2	2	8	Low
(4.1) Internet presence	2	2	2	2	2	10	High
(4.2) Emerging technologies	0	0	0	0	0	0	Low
(4.3) Traditional products	5	30	30	10	10	85	Medium
(5.1) Existing evaluation tools	0	0	0	0	0	0	High
(5.2) New evaluation tools	0	0	0	0	0	0	Low
Total Estimated Annual Cost	54	108	150	97	134	543	

Note: Labor estimates are incorporated in the Operations and Administration Action Plan.

Table 6: Performance Measures for the Education and Outreach Action Plan

Education and Outreach Action Plan Activity	Performance Measure	Baseline	Description	Link to National Program Performance Measures
Activity 1.2 Develop programs to reach previously underserved audiences.	By 2012, FGBNMS staff will conduct a survey to characterize the sanctuary recreational and commercial fishing audience in order to enable future outreach efforts to these sanctuary visitors.	There is currently only anecdotal information on the use of the sanctuary by fishermen, both recreational and commercial.	Upon completion of a pilot study with a focus group, FGBNMS staff will develop a survey to determine the appropriate audiences for outreach priorities among the fishing community.	Characterization (PART)
Activity 3.2 Develop a strong volunteer program.	By 2016, FGBNMS staff will have a strong volunteering program including a formalized process and established policies for each of the four components of the program.	There is currently no formal volunteer program, although informal volunteers have participated in various events.	A formal volunteer program includes the following four components: <ul style="list-style-type: none"> - Formalized recruitment process - Recognition and retention of volunteers - Training manual with annual or semi-annual training opportunities - Position description for each category of volunteers 	Volunteer
Activity 5.1 Identify and implement appropriate evaluation tools. AND Activity 5.2 Develop new evaluation tools as needed.	By 2013, a performance evaluation component will be included in 100% of the education programs at FGBNMS.	Teacher professional development workshops contain an evaluation component. Wildlife Expo has a modest evaluation component. Most aquarium exhibits or volunteer activities do not contain an evaluation component.	FGBNMS education programs include: <ul style="list-style-type: none"> - Teacher professional development - Community events - Aquarium exhibits - Volunteer training - Constituent outreach 	Education Evaluation (PART)