

### 3.2 *Sanctuary Expansion Action Plan*

#### **Background**

Protecting additional critical habitat in the northwestern Gulf of Mexico emerged as a priority issue during the management plan review process. During scoping, 69 separate comments indicated support for boundary expansion and specified 18 additional areas that sanctuary staff should consider including in the sanctuary. In response, the sanctuary advisory council formed a subcommittee and held several public workshops to explore the issue. The subcommittee presented recommendations to the advisory council, who deliberated and made final recommendations to the sanctuary superintendent in December 2007. The Sanctuary Expansion Action Plan (SEAP) describes a process that will be used to evaluate areas for inclusion in the sanctuary and to implement the expansion as appropriate.

A number of reasons were raised as to why additional protection is necessary. First, there is a significant concern about impacts from anchoring on the sensitive biological resources and geological features associated with many reefs and banks in the area. Specific examples were identified that indicate certain areas, such as Sonnier Bank, have already been injured as a result of indiscriminate anchoring. Sanctuary designation would bring a management approach similar to the one that exists at the East and West Flower Garden and Stetson Banks, where mooring buoys have been installed to eliminate the need to anchor in these areas. Second, several areas, such as Sonnier, Bright and Geyer Banks, are becoming popular sites for recreational SCUBA diving, especially as technical diving technologies allowing divers to go deeper underwater become more available. Sanctuary designation could again allow for the installation of mooring buoys to provide safe access to these areas for divers. Third, some areas contain special features that require high levels of protection. These areas include McGrail Bank, where a unique deepwater coral reef is located, and Alderdice Bank, where prominent basalt spires arise from the seafloor, a feature of significant geological interest. Finally, there are areas, such as Bright Bank, where significant damage has occurred as a result of activities that are not properly regulated (e.g., excavation in search of submerged historical resources). For these and other reasons, a comprehensive management approach offered by National Marine Sanctuary designation could provide the necessary protection to these critical habitats.

High-resolution multi-beam bathymetry has revealed reefs and banks outside FGBNMS that form an interconnected network of habitat in the northwestern Gulf of Mexico. In addition to the high relief topographic features known in the region, there are comparatively low relief ridges that connect some of the banks, particularly those near the shelf edge. Many of these hard bottom features are structurally connected to the banks of the sanctuary and are likely important in maintaining the integrity of the sanctuary ecosystem through habitat and species connectivity.

Observations made during submersible and ROV surveys indicate that fish occupy and may move preferentially along these features from bank to bank. The ridges and outcrops provide habitat for many species that are prey to the larger migratory species commonly seen along them. Thus, these “habitat highways” may be critical to the ecological integrity of the reefs and banks of the northwestern Gulf of Mexico, including FGBNMS. In addition, numerous banks and associated

topographic features have unique or unusual structural features, including brine seeps and flows, fragile outcrops and reef cavities, and spawning aggregation sites. Some features may be vulnerable to certain anthropogenic impacts that alter the physical, chemical, biological, or acoustic environment. Although many banks have some protection through BOEM No Activity Zones (NAZ) or through NOAA Fisheries HAPC designations, it is evident that additional resource protection provided by sanctuary status may be warranted.

An initial list of potential boundary expansion sites was compiled from the scoping comments, advisory council and sanctuary staff recommendations, and information collected and compiled from scientific literature. The boundary expansion subcommittee and sanctuary staff evaluated 19 areas for inclusion under the management and protection of FGBNMS (Table 2).

**Table 2: Recommendations for Boundary Expansion of Flower Garden Banks National Marine Sanctuary**

All Banks Considered	Subcommittee Recommendation	Advisory Council Recommendation
East and West FGB	East and West FGB	East and West FGB
Stetson Ring	Stetson Ring	Stetson Ring
Horseshoe Bank	Horseshoe Bank	Horseshoe Bank
McGrail Bank	McGrail Bank	McGrail Bank
Geyer Bank	Geyer Bank	Geyer Bank
Bright Bank	Bright Bank	Bright Bank
Sonnier Bank	Sonnier Bank	Sonnier Bank
Alderdice Bank	Alderdice Bank	Alderdice Bank
MacNeil Bank		MacNeil Bank
Rankin Bank		Rankin Bank
28 Fathom Bank		28 Fathom Bank
29 Fathom Bank		
Rezak Bank		
Sidner Bank		
Bouma Bank		
Jakkula Bank		
Alabama Pinnacles		
Madison/Swanson		
FL Middle Grounds		

The subcommittee determined that the geographic scope for a sanctuary expansion resulting from the FGBNMS management plan review should be restricted to the northwestern Gulf of Mexico, and therefore eliminated the Florida Middle Grounds, the Madison/Swanson area, and the Alabama

Pinnacles from consideration. The subcommittee then developed criteria and a ranking process that included an assessment of each area's biological and/or geological significance, and/or uniqueness, structural connectivity, biological connectivity, level of perceived or known threats, and public and sanctuary priority. The criteria were designed to carry forward the primary mandate of resource protection under the NMSA. From that ranking process, the subcommittee developed options for areas to be included in boundary expansion and presented them to the full advisory council. The subcommittee's preferred option included modifications to East and West Flower Garden and Stetson Banks, and the addition of six other banks to the sanctuary. Based on additional input from advisory council members and public comment, the Flower Garden Banks National Marine Sanctuary advisory council amended the subcommittee's preferred option by adding three additional areas to their official recommendation to the sanctuary superintendent.

The subcommittee recommended that the boundaries for new sanctuary areas be as small as possible while still providing adequate protection to the critical habitat areas associated with each feature. "Critical habitat areas" were identified based on seafloor topography and biological information obtained through previous SCUBA, ROV and submersible investigations. The primary biological assemblages considered as critical habitat include coral reefs, coral communities, coralline algal reefs, and deep coral zones. The critical habitat area includes prominent features associated with each reef or bank, defined as seafloor topography greater than three meters in vertical relief and 25 meters in diameter. The boundary of each critical habitat area was developed by identifying the outermost series of prominent features as landmarks, forming the vertices of an irregular polygon. The subcommittee also recommended that a buffer zone be included to provide an added margin of protection. Buffer zones of 250, 500 and 1000 meters were considered. Ultimately, the subcommittee recommended a 500-meter buffer zone. This buffer recommendation was based on literature detailing dispersal patterns and the likely range of effects of pollutants associated with shunted drilling lubricants and cuttings released during oil and gas exploration and production.



*Deepwater habitat at Bright Bank. Photo: IFE/URI/IAO*

After the initial boundary criteria were developed, an analysis of each proposed addition area was

conducted. Oil and gas infrastructure was examined and recommendations were made to either include or exclude areas with existing platforms, depending on their distance from the critical habitat area and their proximity to the edge of the recommended buffer zone. As a result, it was anticipated that oil and gas leasing activity would also continue within these new sanctuary boundaries, as well. The final sanctuary advisory council recommendation includes four oil and gas production platforms within the recommended boundaries (including HIA389A, which lies within the current sanctuary boundaries).

The final advisory council recommendation for boundary expansion and modification, with boundaries based on the critical habitat area and a 500-meter buffer zone, includes modifying the existing boundaries of East and West Flower Garden Banks and Stetson Bank, and adding Horseshoe Bank, McGrail Bank, Geyer Bank, Bright Bank, Sonnier Bank, Alderdice Bank, MacNeil Bank, Rankin Bank, and 28 Fathom Bank (Figure 8).

The term boundary expansion has been used by the Office of National Marine Sanctuaries to refer to the addition of new areas to existing sanctuary sites. The boundary expansion being proposed for Flower Garden Banks National Marine Sanctuary includes a modification of existing boundaries that define the sanctuary at East and West Flower Garden Banks and Stetson Bank, but also the incorporation of additional banks into the network of sanctuary sites in the northwestern Gulf of Mexico. Presently, Flower Garden Banks National Marine Sanctuary has three discrete sanctuary boundaries around three separate banks. The sanctuary's boundary expansion would incorporate additional banks into this sanctuary network of discrete sites. Although the term boundary expansion was used throughout the advisory council process, sanctuary staff now suggests that the term sanctuary expansion more accurately describes the proposed action. This expansion is being proposed to support the physical and biological connections that maintain the species and ecosystems of the existing sanctuary, as well as those of the other banks in the northwestern Gulf of Mexico.

The NMSA gives administrative authority to designate or expand sanctuary boundaries to the Secretary of Commerce, who delegates that authority to ONMS. The NMSA has specific requirements for the associated administrative process that include inter-agency consultations and environmental analyses, among other activities. As identified in this action plan, the sanctuary will formally consider expansion through a public process guided by requirements of the NEPA and the NMSA. This process requires the development of an environmental impact statement (EIS), which describes the affected environment, the development of alternatives, and the environmental consequences to the human and natural environments of each of the alternatives. In January 2008, the ONMS and the MMS (which became BOEM in 2011) entered into a cooperating agency agreement on the development of the EIS for boundary expansion at FGBNMS. In addition, informal consultations with the GMFMC have been ongoing since the initiation of the management plan review process. Formal consultation with the GMFMC pursuant to Section 304(a)(5) of the NMSA will occur as part of the rulemaking process, as required. It is assumed that since this is an expansion of an existing sanctuary, any new areas will be subject to the regulations that are applicable to FGBNMS (Appendix II). However, site-specific regulations may be necessary for

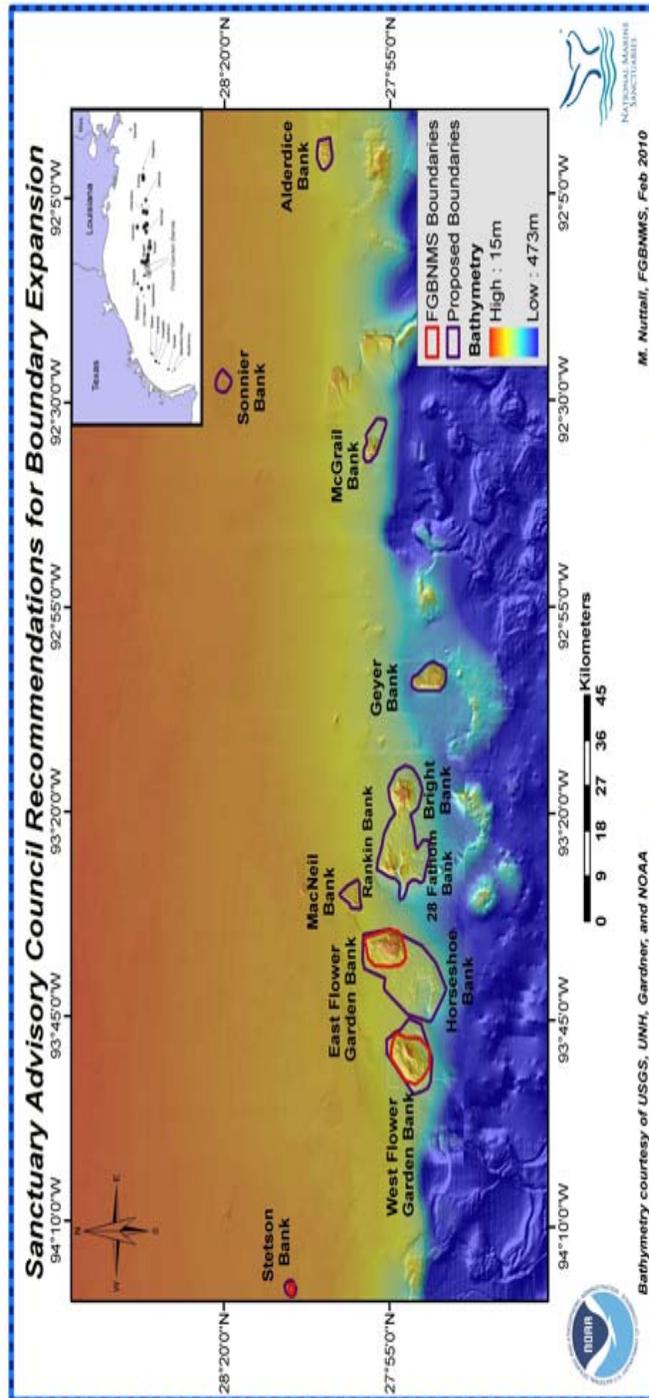


Figure 8. Sanctuary Advisory Council Recommendation for Boundary Expansion

some or all of the new areas and will be considered and evaluated in the designation process.

**Purpose**

The Sanctuary Expansion Action Plan (SEAP) helps to attain the FGBNMS *Goal 6*—promote ecosystem-based management of the FGBNMS regional environment—and *Objective 6C*—evaluate and implement management actions that enhance ecosystem-based management. The purpose of the SEAP is to protect and manage additional sensitive habitat in the northwestern Gulf of Mexico, allowing for the protection of unique geological and biological features of the region that may be ecologically linked to one another.

**Strategies and Activities**

The SEAP contains one strategy to implement a process that will expand the network of protected areas within FGBNMS by incorporating selected reefs and banks in the northwestern Gulf of Mexico for their long term protection and management.

SE.1 – Evaluate and expand, as appropriate, the network of protected areas within the sanctuary to include 5-12 additional reefs and banks, and to modify the existing boundary of East and West Flower Garden and Stetson Banks to include critical adjacent habitat.

- Activity 1.1 Develop a draft environmental impact statement (DEIS) to evaluate alternatives for incorporating additional reefs and banks in the northwestern Gulf of Mexico into FGBNMS, and identify a preferred alternative.
- Activity 1.2 Assess whether changes to the FGBNMS management plan are required to meet the needs of the potential additional areas and develop a draft management plan for the new areas, if necessary.
- Activity 1.3 Develop any necessary implementing regulations.
- Activity 1.4 Release the DEIS, proposed regulations, and draft management plan for public review and comment.
- Activity 1.5 Finalize and release the final EIS, regulations, and management plan.

**Table 3: Estimated Costs for the Sanctuary Expansion 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) DEIS for sanctuary expansion	100	0	0	0	0	100	High
(1.2) Management plan assessment	0	0	0	0	0	0	High
(1.3) Regulation development	0	0	0	0	0	0	High
(1.4) Draft EIS, proposed rule, and draft management plan	10	0	0	0	0	10	High
(1.5) Final EIS, regulations, and management plan	0	20	0	0	0	20	High
Total Estimated Annual Cost	110	20	0	0	0	130	

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

**Table 4: Performance Measures for the Sanctuary Expansion Action Plan**

Sanctuary Expansion Action Plan Activity	Performance Measure	Baseline	Description	Link to National Program Performance Measures
Activity 1.4 Release the DEIS, proposed regulations, and draft management plan for public review and comment.	By 2013, FGBNMS staff will publish a Draft Environmental Impact Statement (DEIS) on boundary expansion.	FGBNMS staff are currently developing the components of a DEIS and gathering existing information on the affected environment and socioeconomics.	FGBNMS staff will continue to collect information and analyze the potential effects, as required by NEPA, and prepare the required documents.	n/a