

**DRAFT OPTIONS DOCUMENT FOR THE FLOWER GARDEN BANKS
NATIONAL MARINE SANCTUARY MANAGEMENT PLAN REVISION**

- I. Introduction
- II. Purpose and Need
 - a. The National Marine Sanctuaries Act
 - b. Flower Garden Banks NMS Management Plan
 - c. Flower Garden Banks NMS Goals and Objectives
- III. Possible Management Strategies and Regulations under Consideration
 - a. Boundary Expansion
 - b. Fishing Impacts / Research Area
 - c. Additional Activities
 - d. Visitor Use
- IV. Appendices



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I. Introduction

The Flower Garden Banks National Marine Sanctuary (FGBNMS) was designated in January 1992, and consists of three separate areas in the northwestern Gulf of Mexico, known as East Flower Garden, West Flower Garden and Stetson Banks. The present management plan for the sanctuary was completed at the time of designation. In accordance with Section 304(e) of the National Marine Sanctuaries Act, as amended, (NMSA) (16 U.S.C. 1431 *et seq.*), the National Marine Sanctuary Program (NMSP) of the National Oceanic and Atmospheric Administration (NOAA) is currently reviewing the FGBNMS management plan to evaluate substantive progress toward implementing the goals for the Sanctuary and to make revisions to the plan and regulations as necessary to fulfill the purposes and policies of the NMSA.

The proposed revised management plan will likely involve changes to existing policies and regulations of the sanctuary, to address contemporary issues and challenges, and to better protect and manage the sanctuary's resources and qualities. The review process is typically composed of four major stages: 1) information collection and characterization; 2) preparation and release of a draft management plan/environmental impact statement (DMP/DEIS), including proposed changes to sanctuary regulations and/or designation document; 3) public review and comment of the DMP/DEIS; and 4) preparation and release of a final management plan/environmental impact statement (FMP/FEIS), including final changes to the regulations and/or designation document. The NMSP anticipates completion of the revised management plan and concomitant documents will require approximately twenty-four to thirty months.

The FGBNMS has conducted public scoping (Oct. – Nov. 2006), prepared an analysis and characterization of the priority issues (Dec. 2006 – Apr. 2007), and is developing potential proposed strategies working with the Sanctuary Advisory Council (May 2007 – present). Public workshops on specific issues also helped gain additional information for potential strategies. The NMSP anticipates the preparation and dissemination of a DMP and DEIS to occur in May/June 2008.

Six priority issues were identified through the public scoping process and by the Sanctuary Advisory Council and sanctuary staff: 1) boundary expansion, 2) education and outreach, 3) enforcement, 4) fishing impacts, 5) pollutant discharge, and 6) visitor use. The sanctuary advisory council formed several subcommittees and working groups to address these issues. Through public meetings and workshops, the working groups developed recommendations on management activities and strategies for consideration by the full advisory council and the sanctuary superintendent. Some of the potential management plan or regulatory changes under consideration may affect fishing activities.

II. Purpose and Need

The purpose and need for the Proposed Action are based on both statutory requirements and the need to address current management issues and concerns within the FGBNMS.

A. The National Marine Sanctuaries Act

The National Marine Sanctuaries Act (NMSA) of 1972, as amended (16 U.S.C. § 1431 *et seq.*), is the legislative mandate that governs the National Marine Sanctuary Program (NMSP). Under the NMSA, the Secretary of Commerce is authorized to designate and manage areas of the marine environment as national marine sanctuaries. Such designation is based on attributes of special national significance, including conservation, recreational, ecological, historical, scientific, cultural, archaeological, educational, or aesthetic qualities. The primary objective of the NMSA is resource protection. The purposes and policies of the NMSA (16 U.S.C. § 1431) are clearly reflected in the goals of the 2005 NMSP Strategic Plan. The strategic plan was designed to describe and define how the NMSP is moving toward comprehensive protection and management of national marine sanctuaries as mandated by the NMSA.

The NMSA also requires the NMSP to review sanctuary management plans at five-year intervals and to revise the management plans and regulations as necessary to fulfill the purposes and policies of the NMSA (16 U.S.C. § 1434(e)). Sanctuary administrators must evaluate the progress toward NMSP and sanctuary-specific goals, techniques used to achieve those goals, and involve and inform the public as sanctuary priorities are reviewed and revised along with the strategies to accomplish those priorities.

B. Flower Garden Banks NMS Management Plan

The Flower Garden Banks was designated a national marine sanctuary in 1992 for the purposes of protecting and managing the conservation, recreational, ecological, historical, research, educational, and aesthetic resources and qualities contained therein. The management plan provides an integrated program for comprehensive resource protection and management, including programs for science, education, outreach, regulation, enforcement, permitting, and coordination with other local, state, and federal agencies. The plan was developed in 1991 prior to the designation of the sanctuary. No review or revision has been conducted since that time. Stetson Bank was added to the sanctuary through Congressional designation in 1996.

Many issues have been identified by the NMSP and the public for consideration during review of the FGBNMS management plan, including potential impacts to sanctuary resources from fishing and diving activities, pollutant discharges, regional water quality, invasive species, and wildlife interactions. Scientific information, advancements in managing marine resources, and new resource management issues over the past 16 years must also be addressed. Evolving biological information is leading to an examination of the interconnections of the East and West Flower Garden and Stetson banks with similar bank features outside the existing sanctuary boundaries. In addition, law enforcement partners agree that compliance and enforcement strategies must be revisited. Global

climate change, too, may affect the review and selection of management strategies for the future of corals at FGBNMS.

C. Flower Garden Banks NMS Goals and Objectives

Every National Marine Sanctuary is required to develop a set of goals and objectives to help guide the development of its management plan. Activities, strategies and regulations must be consistent with the sanctuary's goals and objectives in addition to the purposes and policies of the NMSA,. The review and revision of the goals and objectives for a sanctuary is an important element of management plan review. The strategies and activities that comprise the action plans of the management plan should contribute to the attainment of the sanctuary goals and objectives and the purposes and policies of the NMSA.

The following sanctuary goals were developed cooperatively with the Flower Garden Banks National Marine Sanctuary Advisory Council and approved at their public meeting in July 2006. These goals were published in the State of the Sanctuary Report in September 2006, and distributed for public comment during scoping. They will be included in the draft management plan.

Goal 1: Protect, maintain, and where appropriate, restore and enhance the characteristics of the Flower Garden Banks National Marine Sanctuary including, but not limited to, the natural living and geological resources, ecological processes, and water quality.

Goal 2: Enhance conservation and protection of the region by supporting, promoting, and coordinating scientific research and monitoring of the FGBNMS environment.

Goal 3: Enhance and foster public awareness, understanding, appreciation, and stewardship of the FGBNMS and the regional marine environment.

Goal 4: Manage and facilitate multiple sustainable uses of the FGBNMS compatible with the primary purpose of resource protection.

Goal 5: Promote and lead conservation and management partnerships to protect FGBNMS resources and the regional marine environment.

Goal 6: Promote ecosystem-based management of marine resources within the region adjacent to the FGBNMS.

Goal 7: Provide appropriate infrastructure and assets for FGBNMS programs to effectively conserve and manage FGBNMS resources.

III. Potential Management Strategies and Regulations under Consideration

During the scoping phase of management plan review, the NMSP summarized and, with input from the sanctuary advisory council, prioritized the issues to be addressed. Some of the potential management strategies and regulations being considered by the advisory council and the NMSP may affect fishing activities. These issues include: boundary expansion, fishing impacts (primarily the creation of a research area), and visitor use.

The following section outlines potential management plan strategies and activities that may affect fishing activities. This is a preliminary analysis and is still under consideration by the advisory council and the NMSP.

A. BOUNDARY EXPANSION

Some potentially vulnerable and significant geological and biological features in the northwestern Gulf of Mexico are outside current sanctuary boundaries. Additional features were revealed through the collection of high-resolution multibeam bathymetry in the years since the present sanctuary boundaries were established. Numerous banks and associated topographic features in the northwestern Gulf of Mexico, like the Flower Garden Banks, have unique or unusual structural features, and may be ecologically linked to each other. These features may be highly vulnerable to certain anthropogenic impacts that alter the physical, chemical, or biological environment. It is proposed that selected features be evaluated for inclusion under the management and protection of the NMSP through the FGBNMS.

Possible Boundary Expansion Alternatives

An initial list of potential boundary expansion sites was compiled from the public scoping comments, Sanctuary Advisory Council and sanctuary staff knowledge, and information contained in a series of Bureau of Land Management (now Minerals Management Service) documents that resulted from scientific investigations in 1970s and 1980s in the northwestern Gulf of Mexico. The Sanctuary Advisory Council created a Boundary Expansion Working Group (BEWG) to evaluate boundary expansion options. The list of possible sites was subjected to a ranking process developed by the BEWG. Although input was received from the public to consider areas throughout the Gulf of Mexico, the BEWG agreed that the scope for the FGBNMS Management Plan Review would be restricted to reefs and banks of the continental shelf within the northwestern Gulf of Mexico. The BEWG developed and presented a range of boundary expansion alternatives to the full Sanctuary Advisory Council. The council voted to adopt Option 3A as its recommendation to the FGBNMS Superintendent.

The BEWG 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, remotely operated vehicle (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 3 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 BEWG also recommended that a buffer zone be included in the proposed boundaries to provide an added margin of protection. Buffer zones between 250 to 1000 meters were considered. Ultimately the BEWG recommended a 500 meter buffer zone. This buffer recommendation is based on literature detailing dispersal and effects of pollutants associated with shunted drilling lubricants and cuttings resulting from oil and gas exploration. After the initial boundary criteria were developed, an analysis of each proposed addition area was conducted. During this analysis, oil and gas infrastructure was considered and recommendations were made to either include or exclude existing platforms, depending on the distance from the critical habitat area and the proximity to the edge of the recommended buffer zone. The final Sanctuary Advisory Council recommendation includes four oil and gas production platforms (including HIA389A, which is already included in the current sanctuary boundaries) within the proposed boundaries.

The following is a summary of four boundary expansion alternatives considered by the Flower Garden Banks NMS Advisory Council. **The Sanctuary Advisory Council’s recommendation to the NMSP is Alternative 3A.**

Alternative 1: Adjust the boundaries of the existing banks within the FGBNMS. This includes expansion of the boundary of Stetson Bank to include the portion of the feature known as the “Stetson Ring,” and expansion of the boundaries of the East and West Flower Garden Banks to include bottom features associated with the primary banks.

Option 1A: The boundaries will be irregular polygons based on the outer location of identified “critical habitat areas” plus a 500-meter buffer zone.

Option 1B: The boundaries of the additional areas will be based on the existing Habitat Areas of Particular Concern (HAPC) designations.

Alternative 2: Adopt Alternative 1 and extend the boundary of the FGBNMS to include five additional “priority”reefs and banks in the northwestern Gulf of Mexico. These include: Bright, Geyer, McGrail, Sonnier, and Alderdice Banks.

Option 2A: The boundaries of the additional areas will be irregular polygons based on the outer location of identified “critical habitat areas” plus a 500-meter buffer zone.

Option 2B: The boundaries of the additional areas will be based on the existing Habitat Areas of Particular Concern (HAPC) designations (modified for Bright Bank).

Alternative 3: Adopt alternative 2 and extend the boundary of the FGBNMS to include four additional banks that are physically and/or ecologically connected to the Flower Garden Banks. These include: Horseshoe, MacNeil, Rankin, and 28 Fathom Banks.

Option 3A: The boundaries of the additional areas will be irregular polygons based on the outer location of identified “critical habitat areas” plus a 500-meter buffer zone. **(Option recommended by the Sanctuary Advisory Council).**

Option 3B: The boundaries of the additional areas will be based on the existing Habitat Areas of Particular Concern (HAPC) designations (modified for Horseshoe Bank).

Alternative 4: Extend the boundary of the FGBNMS to include 14 additional reefs and banks in the northwestern Gulf of Mexico. These include: Horseshoe, MacNeil, 29 Fathom, Rankin, 28 Fathom, Bright, Geyer, McGrail, Bouma, Rezak, Sidner, Sonnier, Alderdice, and Jakkula Banks.

Option 4A: The boundaries of the additional areas will be irregular polygons based on the outer location of identified “critical habitat areas” plus a 500-meter buffer zone.

Option 4B: The boundaries of the additional areas will be based on the existing Habitat Areas of Particular Concern (HAPC) designations (modified for Horseshoe Bank).

Fishing Regulations Within Expansion Areas

The DMP/DEIS will identify the regulations that will apply within the boundary of expansion areas. One logical alternative is to apply the same regulations that already exist within the current FGBNMS to the new areas. Of those regulations, several apply directly or indirectly to fishing. These include: no anchoring, no taking of fish or invertebrates by means other than the use of conventional hook and line gear, and no possession of gear or fish caught by gear other than conventional hook and line. See Appendix B for a summary of fishing-related regulations in the FGBNMS.

Alternative 1: Apply the existing FGBNMS regulations to the expansion areas.

Alternative 2: Apply existing FGBNMS regulations to the expansion areas, with the following exception: Prohibit anchoring only at McGrail Bank and in prescribed areas (depths less than 60 meters) of Sonnier, Geyer, Bright, and Alderdice Banks. Anchoring in other portions of the new areas will be allowed.

Apply existing FGBNMS regulations to the expansion areas, with the following exceptions:

- a. Anchoring prohibition (note: anchoring by fishing vessels is already prohibited within the McGrail Bank HAPC).

- b. Fishing-related prohibitions (gear types, possession of unauthorized gear and fish, possession or use of explosives).
- c. NOTE: Prohibition on take and possession of coral, bottom formations, invertebrates, etc. would remain.

B. FISHING IMPACTS / RESEARCH AREA

The influence of fishing and associated fishing activities on the FGBNMS are not well documented, but concerns are mounting about the impacts on the marine ecosystems in a variety of ways, both directly (reduced fish biomass) and indirectly (secondary impacts on species interactions, habitat alteration/damage, marine biodiversity impacts, economic impacts). Specific concerns include: targeted fishing efforts that could impact snapper, grouper and pelagic (wahoo, amberjack) populations; focused fishing during spawning aggregations; injury to corals and other biological habitat by lost and discarded fishing gear; and fishing bycatch. Due to the perceived decline in the number and size of large fish species at the Flower Garden Banks in recent years, numerous comments were received from the public (primarily recreational divers) to further restrict or eliminate fishing within the sanctuary. However, due to the lack of direct documentation of the negative impacts related to fishing, the Sanctuary Advisory Council recommended that a research and monitoring program to determine the effects of fishing be developed. In addition, it was recognized that negative impacts from diving activity may also be occurring. Therefore, the research program should also include an analysis of diving impacts. Below is a strategy under consideration by the Sanctuary Advisory Council that describes a potential portion of the research program dedicated to the study of potential impacts from fishing and diving.

Strategy: Establish a research study to help determine the impacts of fishing and diving on marine resources of the Flower Garden Banks NMS. This study will include time-limited access restrictions for fishing and diving within portions of the banks within the existing FGBNMS (East and West Flower Garden and Stetson Banks). The research study will include the following components:

1. Monitor and evaluate vessel and visitor use activity.
2. Establish an experimental closure to fishing (and diving) within portions of the existing FGBNMS (i.e. potential new areas not to be included). A panel of experts and stakeholders will determine the experimental design, including the size and location of the fishing and diving closures.
3. Design and conduct a monitoring program to determine the impacts on biological communities as a result of the closure.
4. Continue research to identify spawning aggregations, critical habitat and sensitive features within the sanctuary that may be impacted by fishing and diving activities.
5. Monitor and enforce compliance with Sanctuary regulations relating to the experimental closure.
6. The experimental closure will terminate after eight years unless further action is taken by the FGBNMS.

Possible Research Area Alternatives

Alternative 1: Establish research areas at the East Flower Garden, West Flower Garden and/or Stetson Banks to determine the impact of fishing activities.

Option 1A: Close either the East Flower Garden Bank or West Flower Garden Bank to all fishing activities for a period not to exceed 8 years while monitoring fish populations and other parameters in both areas. The bank not selected for closure will remain open to fishing and will be utilized for comparison to the closed area.

Option 1B: Close either the East Flower Garden Bank or West Flower Garden Bank **and** Stetson Bank to all fishing activities for a period not to exceed 8 years while monitoring fish populations and other parameters. The Flower Garden Bank not selected for closure will remain open to fishing and will be utilized for comparison to the closed area. Another area open to fishing will be identified for comparison with Stetson Bank.

Option 2: Close portions of the East and West Flower Garden and /or Stetson Banks, leaving the remaining areas open to fishing, while monitoring fish populations and other parameters in all areas.

C. ADDITIONAL ACTIVITIES

The primary activity under consideration related to fishing is the creation of a research area or areas to determine the impacts of fishing and diving, described above. However, other proposed actions have been discussed. Below are alternatives under consideration by the Sanctuary Advisory Council that relate to protecting sanctuary resources from the impacts from fishing and diving activities.

Alternative 1: Prohibit the intentional harassment of manta rays, mobula rays, spotted eagle rays, whale sharks and scalloped hammerhead sharks by divers within the FGBNMS.

Alternative 2: Revise the regulations relating to allowable fishing gear to restrict hook and line fishing to a maximum of 3 hooks, no electric reels, and no bottom contact.

D. VISITOR USE (including Fishing)

The strategies presented below were recommended by the Sanctuary Advisory Council at their meeting in February 2008. They are currently under consideration by the NMSP for inclusion in the DMP/DEIS.

Visitor Use

Impacts on the sanctuary from visitation by SCUBA divers, fishermen and boaters are an increasing concern. With the exception of recreational dive charter use, there is a

significant lack of information on the level and intensity of visitor activity in the sanctuary. As visitor use increases, demand for mooring buoys will also increase, potentially leading to user conflict. These combined pressures cause concern for future management and continued protection and sustainability of sanctuary resources.

Strategy 1: Increase protection for sanctuary resources from shipping and other vessels transiting the sanctuary.

- Consider pursuing an International Maritime Organization (IMO) designation for the FGBNMS as an “Area to be Avoided.”
- Consider domestic regulations to recognize the sanctuary as an “Area to be Avoided.”
- Determine vessel size limitations for “Area to be Avoided.” (Recommendation: vessels over 50 meters in registered length).

Strategy 2: Improve information on visitor use and impacts.

- Develop a framework for implementing a voluntary vessel registration system.
- Create a monitoring program to study visitor use.
- Consider a regulation for mandatory vessel registration.
- Utilize Automatic Identification System (AIS) data to track sanctuary vessel traffic and use.

Strategy 3: Reduce user conflict over mooring buoys.

- Consider a regulation to limit the distance between a vessel displaying a dive flag while moored to a buoy and approaching vessels.
- Consider a regulation to limit the distance a diver may be from dive flag.
- Consider allowing oncoming vessels to approach dive flag vessels, if contact is made with the captain in advance of reaching the allowable closest point of approach.
- Consider weight restrictions along with current length restrictions for vessels mooring to buoys.

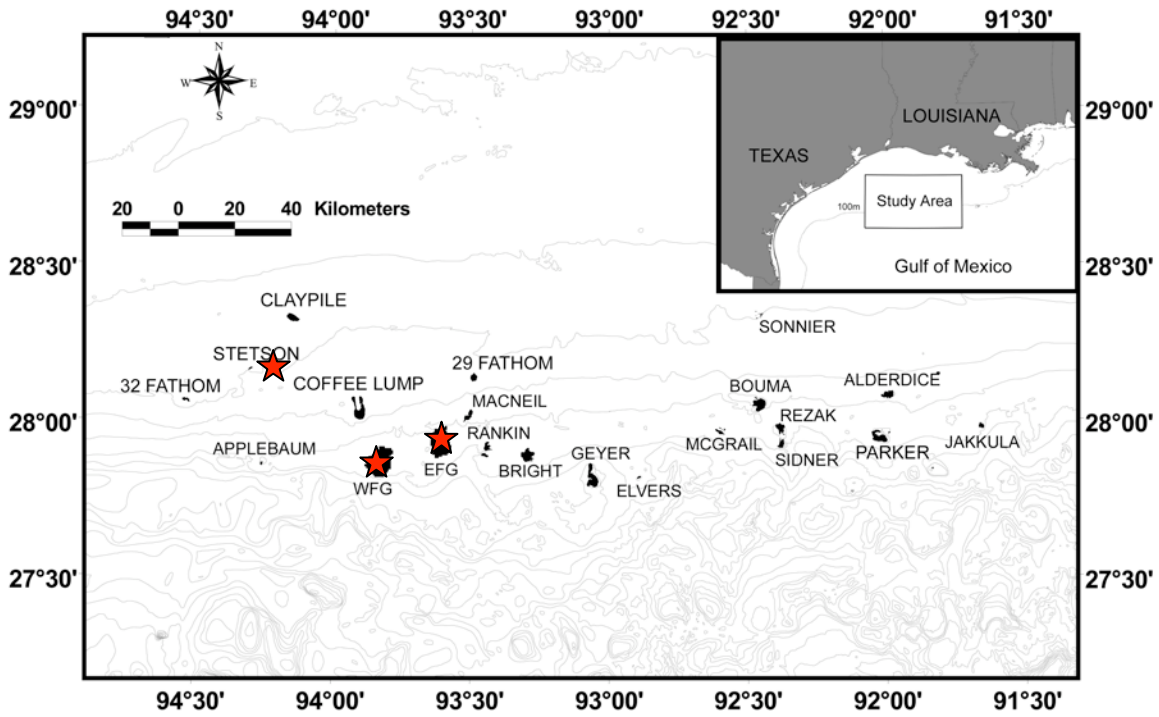
IV. Appendices

Appendix A: Maps of Boundary Expansion Alternatives

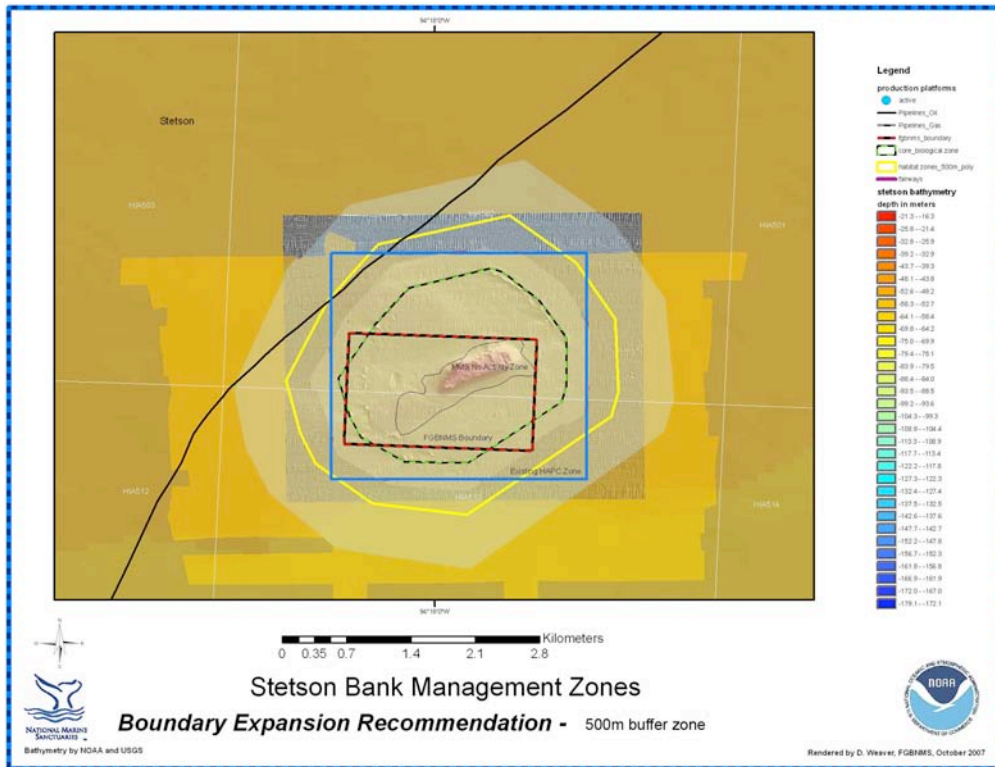
Appendix B: Flower Garden Banks NMS Existing Fishing Regulations

**Appendix A:
Maps of Boundary Expansion Alternatives**

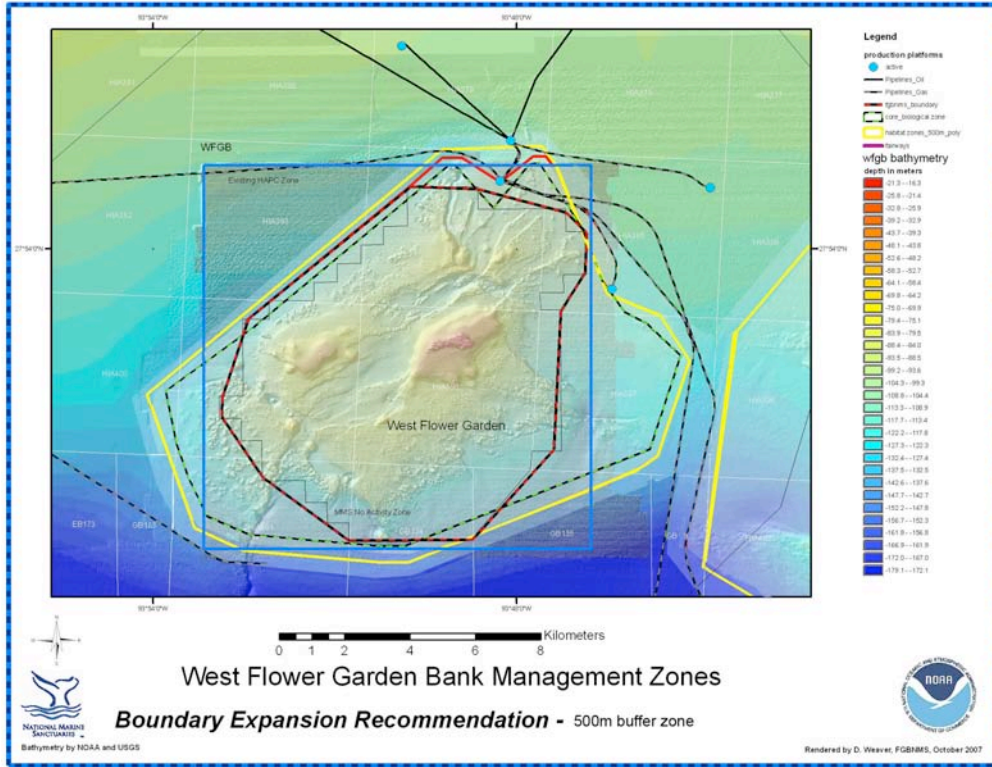
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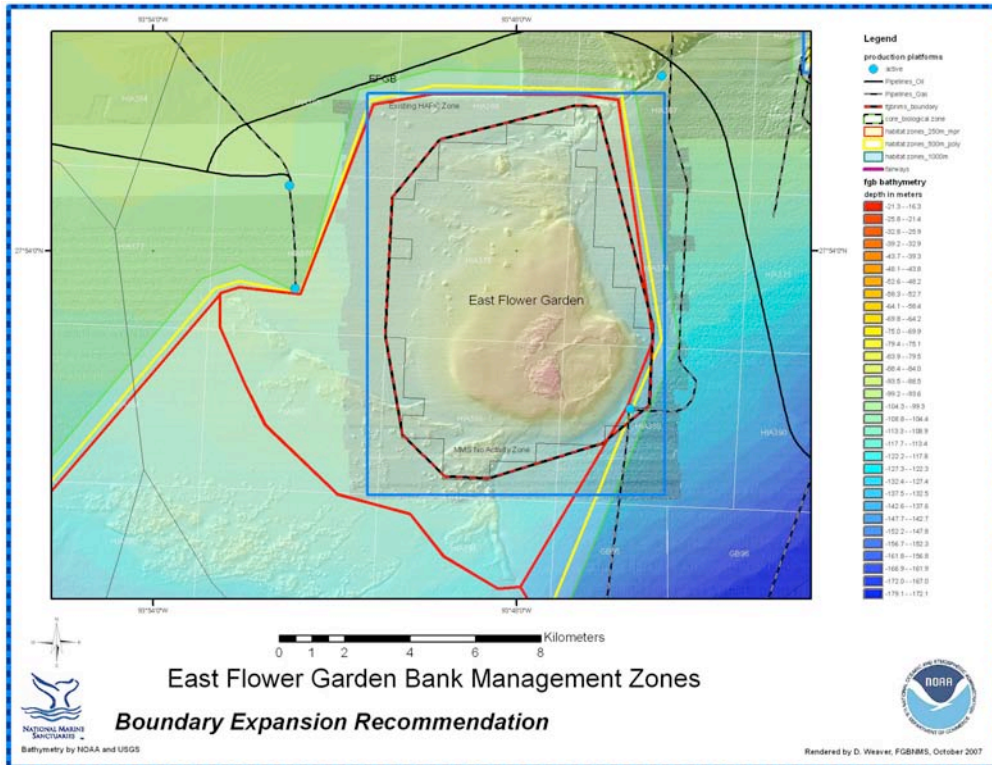
Alternative 1



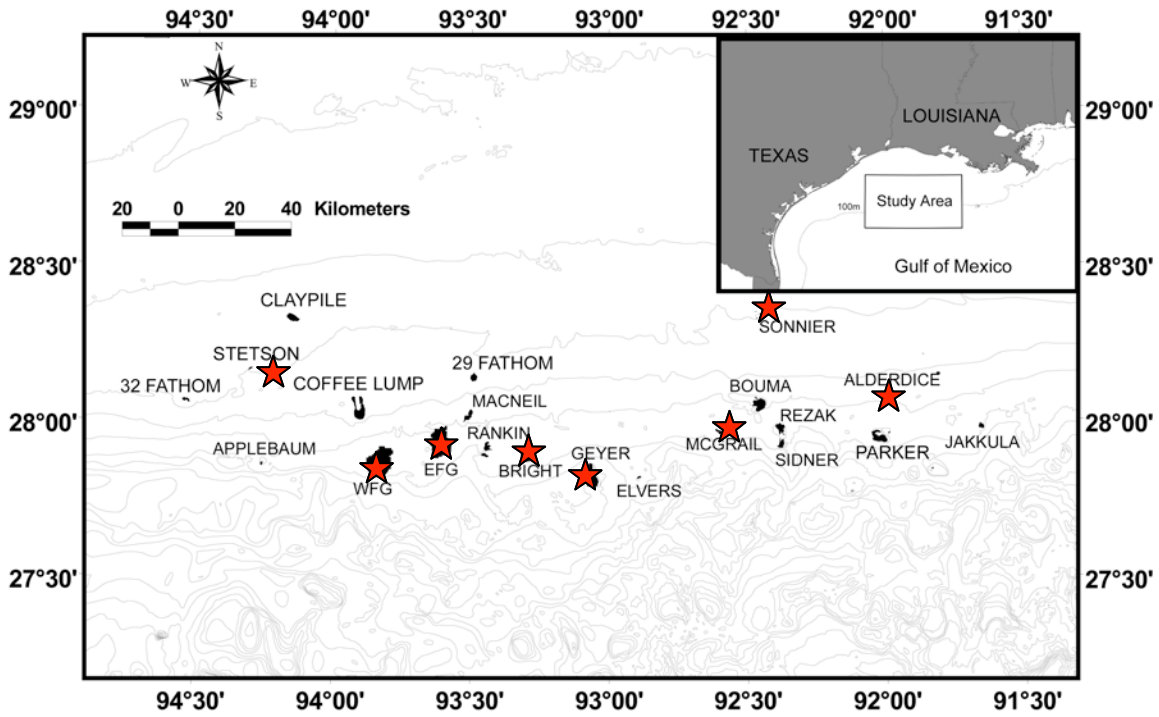
Stetson Bank



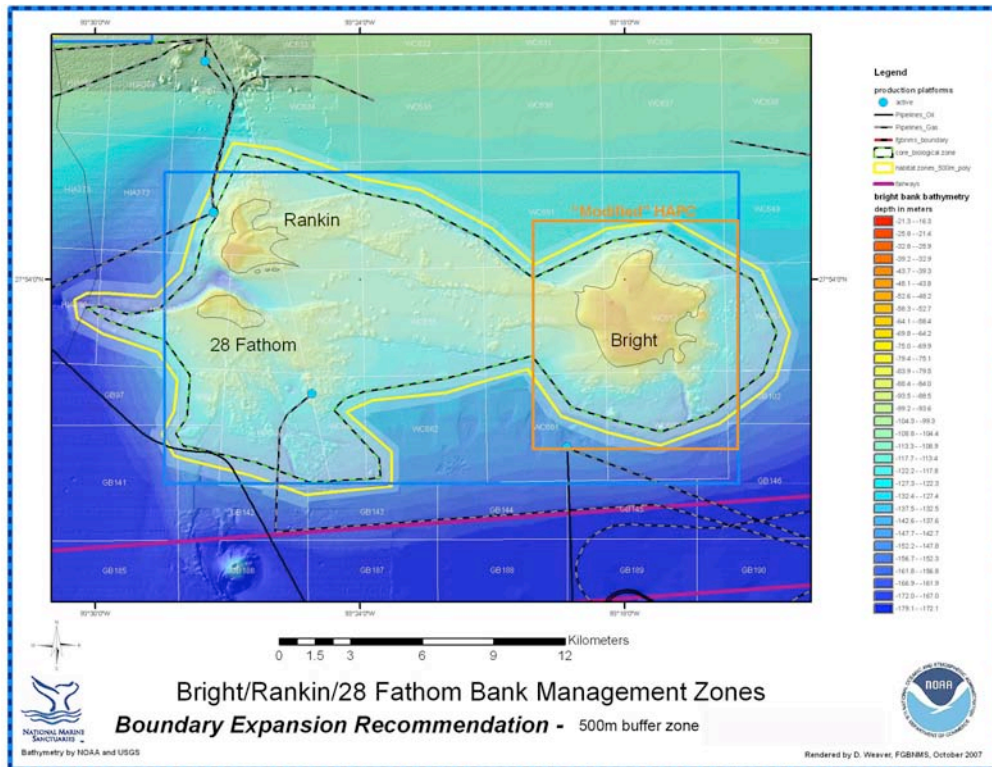
West Flower Garden Bank



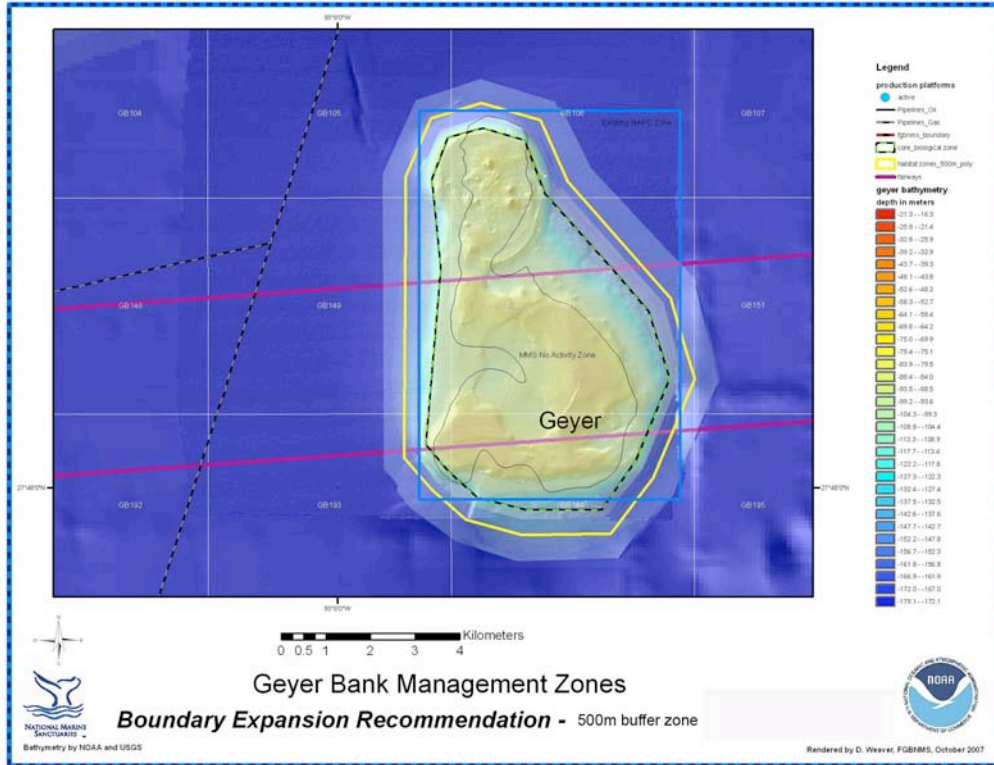
East Flower Garden Bank



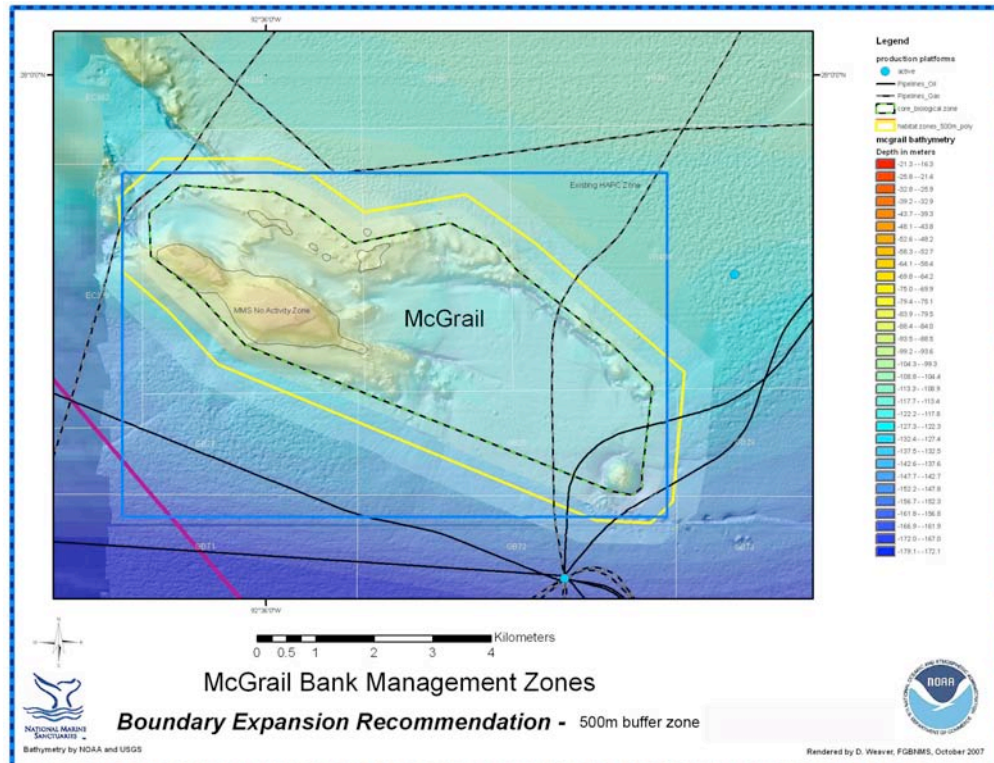
Alternative 2



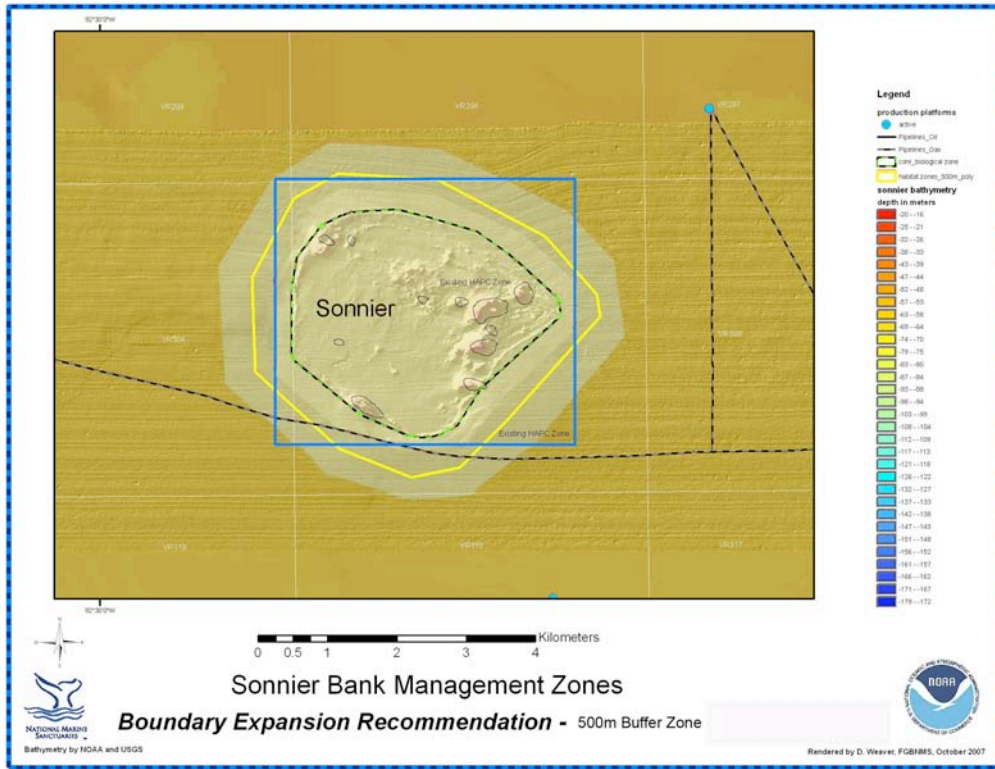
Bright Bank



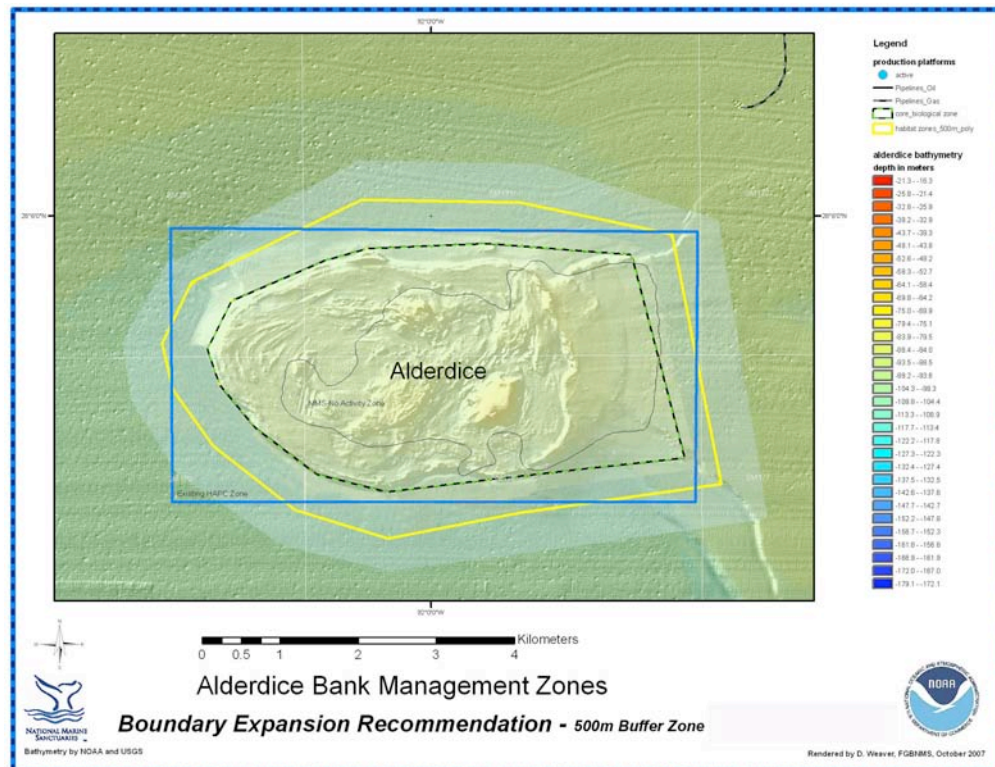
Geyer Bank



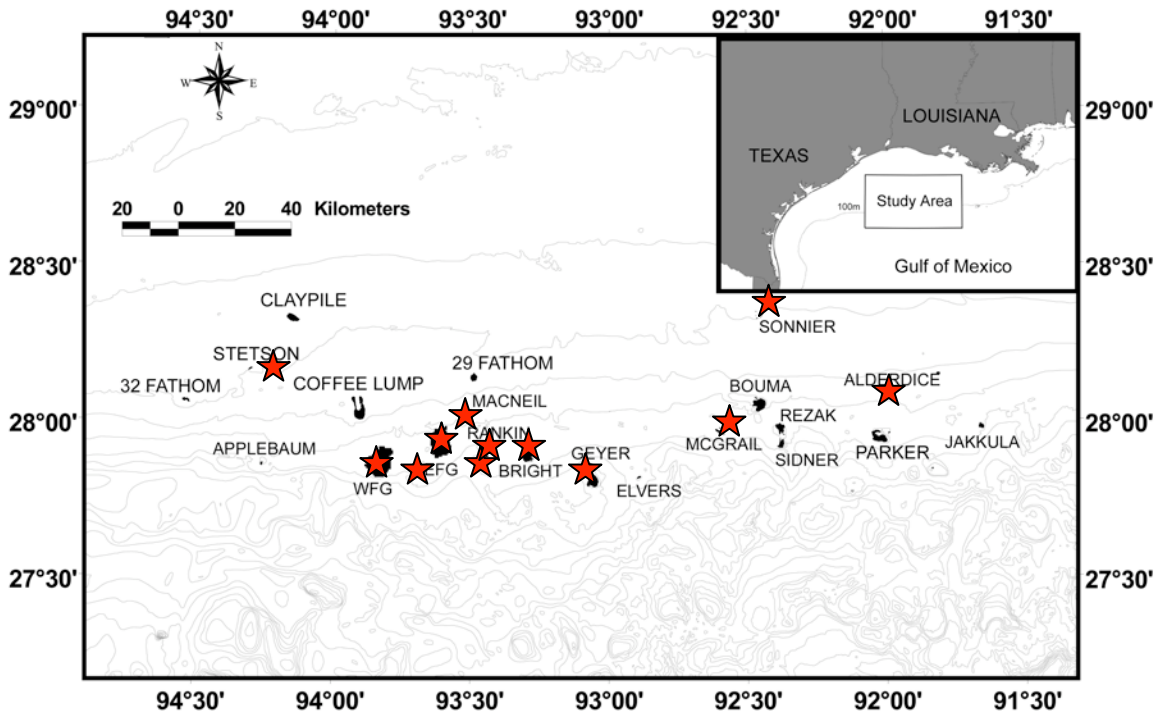
McGrail Bank



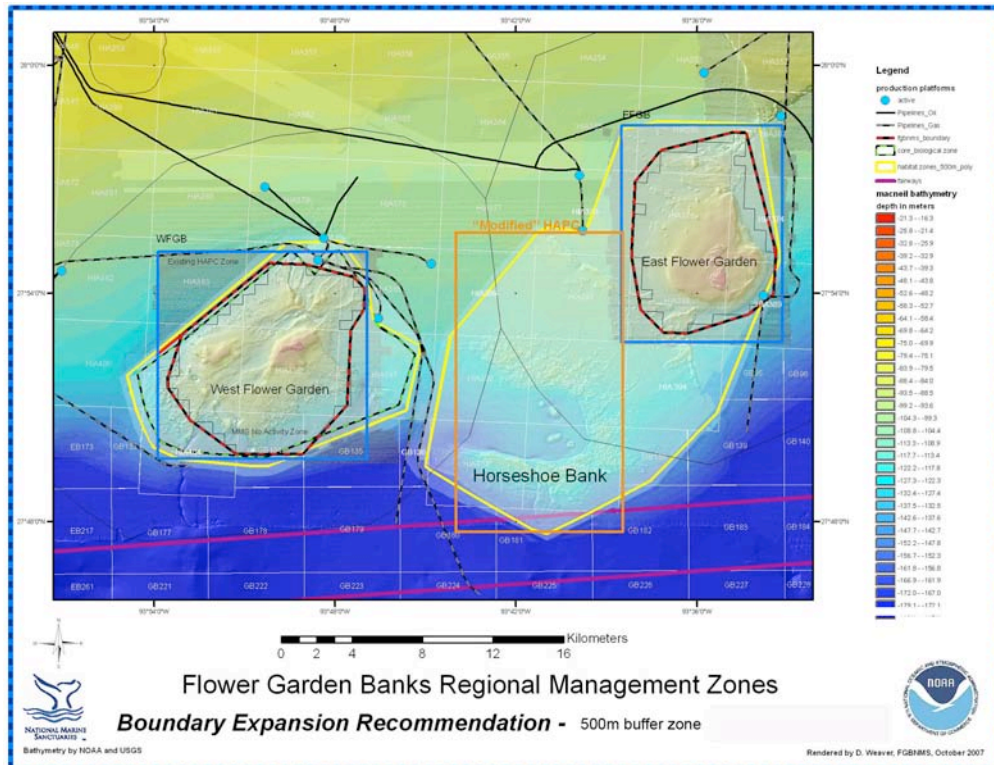
Sonnier Bank



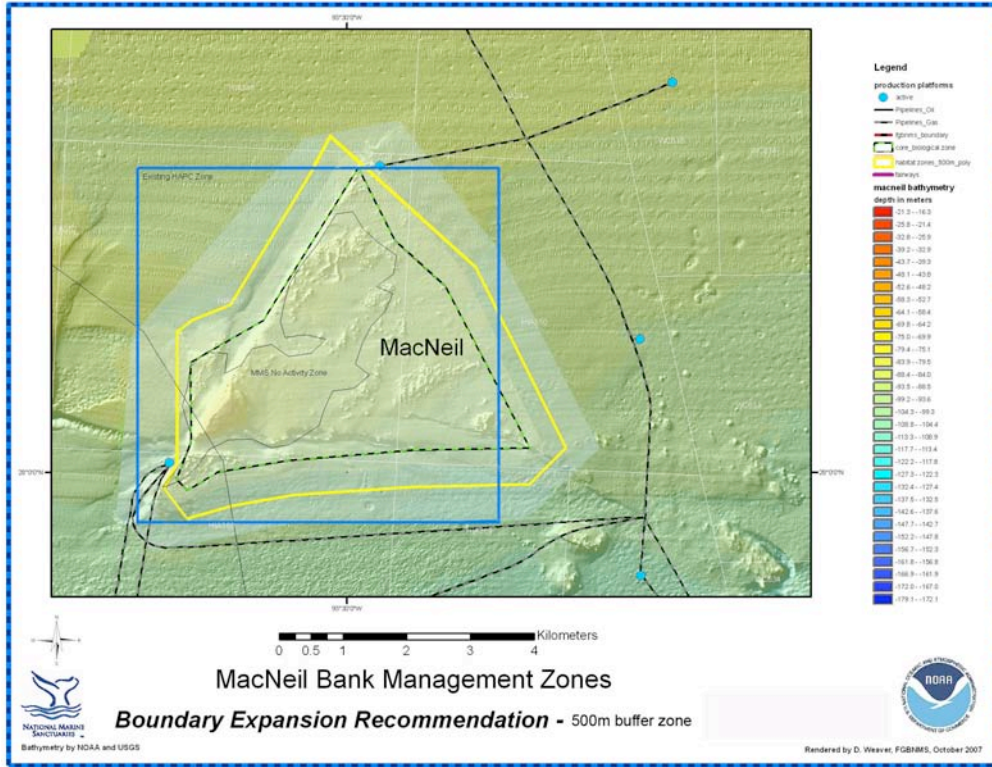
Alderdice Bank



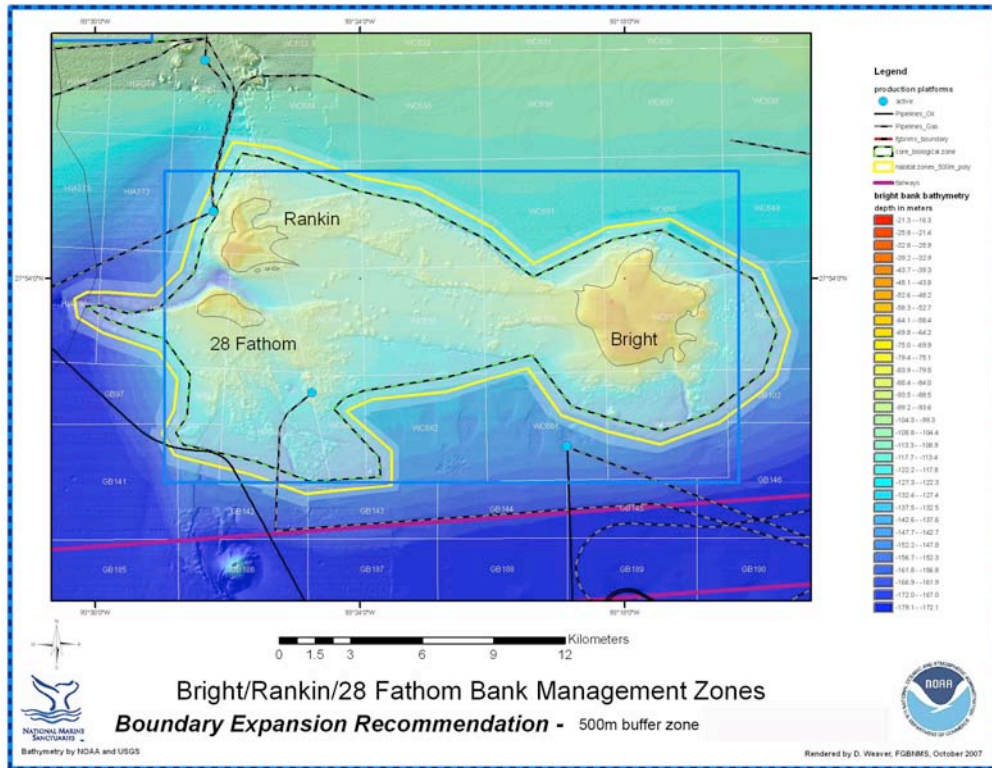
Alternative 3



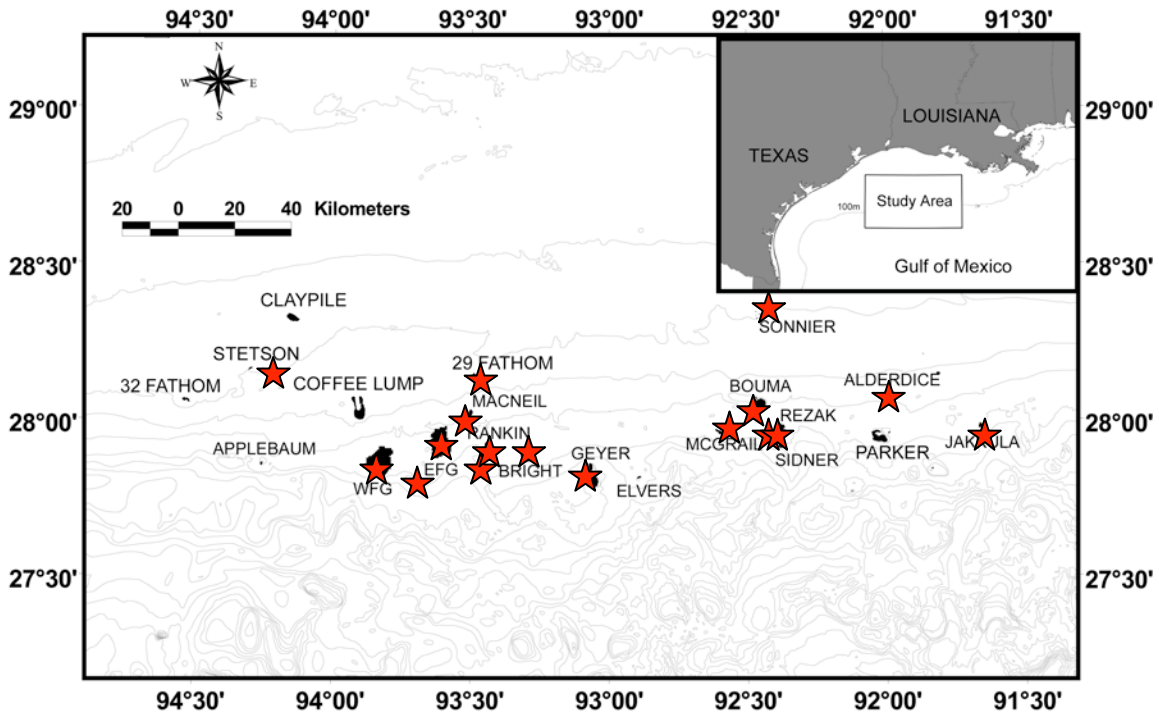
“Horseshoe” Bank



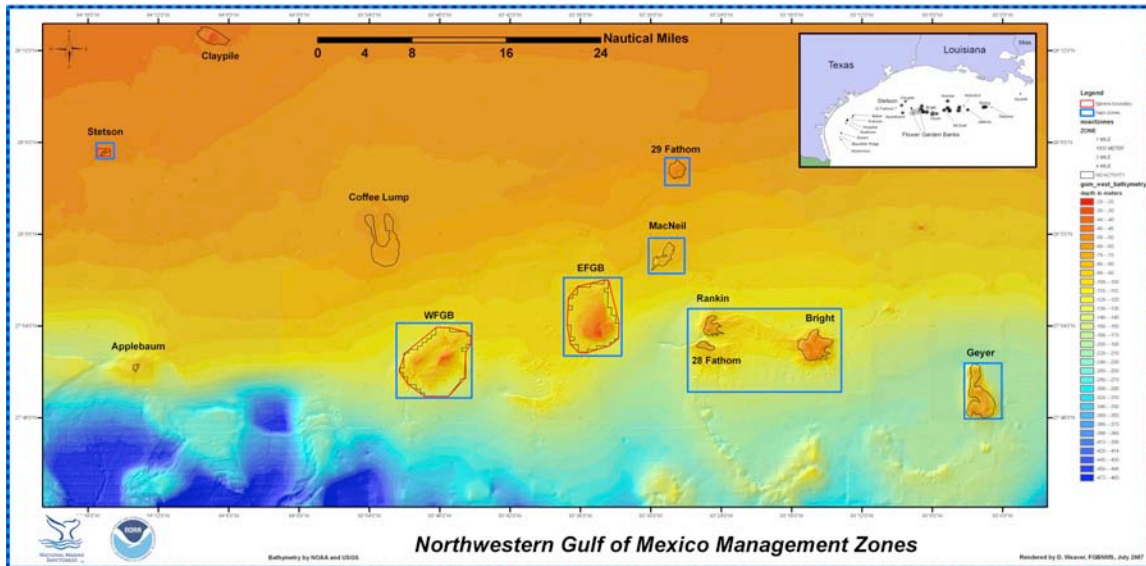
MacNeil Bank



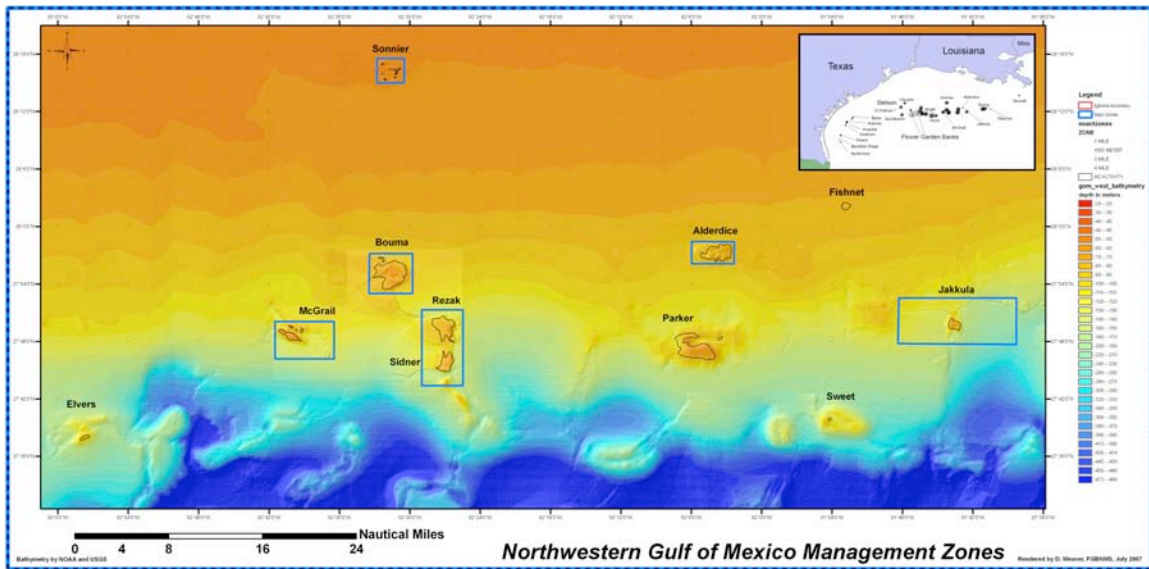
Rankin / 28 Fathom Banks



Alternative 4



HAPC Boundaries – Western Flower Garden Banks Region



HAPC Boundaries – Eastern Flower Garden Banks Region

Appendix B: Flower Garden Banks NMS Existing Fishing Regulations

The following is an abbreviated summary of existing regulations related to fishing within the Flower Garden Banks National Marine Sanctuary: For full text of the regulations see: 15 CFR, Pt. 922, Subpart L

Fishing and Related Activities

The following activities are prohibited:

- Fishing by any means (*e.g. spear guns, powerheads, traps, longlines, nets*) **except** conventional hook and line gear.
- Possessing, except while passing through the Sanctuary without interruption, any fishing gear, device, or equipment (*e.g. trawl gear, spearguns*) **except** conventional hook and line gear.
- Possessing fish caught by any means **other** than conventional hook and line gear.
- Feeding fish.

Conventional hook and line gear means any fishing apparatus operated aboard a vessel and composed of a single line terminated by a combination of sinkers and hooks or lures and spooled upon a reel that may be hand or electrically operated, hand-held or mounted.

Anchoring and Mooring

The following activities are prohibited:

- Anchoring any vessel within the Sanctuary boundaries.
- Mooring a vessel over 100 feet in registered length on a Sanctuary mooring buoy.

Discharges

Discharging or depositing any material or other matter within the Sanctuary is prohibited, with the following exceptions:

- Fish, fish parts, chumming materials or bait used in, or resulting from, fishing with conventional hook and line gear.
- Biodegradable effluents incidental to vessel use and generated by an approved marine sanitation device.
- Water generated by routine vessel operations (*e.g. engine exhaust, cooling water, deck wash down, and gray water*), excluding oily wastes from bilge pumping.

Injury to or Possession of Sanctuary Resources

The following activities are prohibited:

- Injuring or removing, or attempting to injure or remove, any coral or other bottom formation, coralline algae or other plant, marine invertebrate (*e.g., spiny lobster, queen conch, shell, sea urchin*), brine-seep biota or carbonate rock.
- Possessing within the Sanctuary (regardless of where collected, caught, harvested or removed), any coral or other bottom formation, coralline algae or other plant, or fish (except for fish caught by use of conventional hook and line gear).
- Placing or abandoning any structure, material or other matter on the seabed of the Sanctuary.