

**FLOWER GARDEN BANKS NATIONAL MARINE SANCTUARY
Sanctuary Advisory Council Boundary Expansion Working Group
Meeting Minutes
February 5, 2018**

Meeting Attendance Roster:

Clint Moore	Oil and Gas Industry	Present
Shane Cantrell	Fishing – Commercial	Present
Natalie Hall	Diving Operations	Present (webinar)
Jesse Cancelmo	Recreational Diving	Present (webinar)
Scott Hickman	Fishing - Recreational	Present
Buddy Guindon	Fishing - Commercial	Present
Adrienne Correa	Research	Not Present
Charles Tyer	NOAA OLE	Present (webinar)
Randy Widaman	Diving Operations	Not Present
Jake Emmert	Conservation	Present

Total member attendance: 8 of 10 members (7 of 9 voting members)

Others in attendance:

Leslie Clift (FGBNMS), G.P. Schmahl (FGBNMS), Emma Hickerson (FGBNMS), Bill Kiene (FGBNMS), Shelley Du Puy (FGBNMS), Dan Dorfman (National Centers for Coastal Ocean Science (NCCOS)), Randy Clark (NCCOS; webinar), Chris Jeffrey (NCCOS; webinar), Jennifer Reynolds (Galveston Daily News), Marissa Barnett (Galveston Daily News), Alex Stuckey (Houston Chronicle), Tom Bright (webinar), Sharon McBreen (Pew; webinar), Kaitlin Buhler (Moody Gardens), Christopher Guindon

5:13 PM – Meeting called to order by Clint Moore

Adoption of Agenda – Buddy Guindon moved to adopt, Jake Emmert seconded motion. No discussion, all in favor, motion approved.

Adoption of Minutes – Buddy moved to adopt, Jake seconded motion. No discussion, all in favor, motion approved.

5:15 PM – Public comment

Kaitlin Buhler - supports Alternative 3. She is working on a master's thesis and reviewing ROV (remotely operated vehicle) footage from some of the banks [in the proposed sanctuary expansion], such as McGrail Bank. What she's seeing makes her strongly feel that they should be in the Sanctuary. G.P. Schmahl added Kaitlin is very familiar with the biology, as she helped identify images in the PSBF (potentially sensitive biological feature) study. Kaitlin has been diving numerous times at Flower Garden Banks National Marine Sanctuary (FGBNMS), participated in FGBNMS cruises, and is on the husbandry team at Moody Gardens.

5:20 PM NCCOs Presentation (Dan Dorfman)

NCCOS analysis is an effort to synthesize all data gathered from the offshore areas of the banks and put it into cartographic form so that the BEWG can better interpret and use this information in their decision process for the ultimate expansion.

Dan Dorfman presented the third draft of NCCOS' Decision Support System:

Distribution of Human Uses

Data layers added to feature the distribution of human uses include BOEM NAZ (no activity zone), oil and gas structures, VMS (vessel monitoring system) as a way to display distribution of fishing effort, and a 5-year dataset of shipping fairway traffic (AIS). Higher values were assigned to areas with high human use, and lower values were assigned to areas with less human use.

Distribution of Biological and Ecological Features

Data layers added to feature the distribution of biological and ecological features include Core Sensitivity Zones, BOEM NAZ, data from the BOEM PSBF study, and a 16-year dataset of ROV data. All combined, these 20,000 observations were funneled into a GIS (geographic information system) layer titled, "All Bio".

Site Selection Approach

Using a site selection algorithm, areas were selected that showcased the best ecological features (60% of Core Sensitivity Zones) while minimized the areas of conflict with high human use.

In a second analysis of cumulative significance, Dan ran the modeling tool with an increased clustering (i.e., higher boundary modifier) that represented 80% of Core Sensitivity Zones, and increased spatial contiguity (i.e., clustering).

Dan created a GIS layer representing a 5,000 foot (1,500 meters (m)) oil & gas field band around each NAZ, which is the area where, based on information from Clint Moore, efforts would be concentrated for drilling for oil and gas resources.

VMS data shows high fishing pressure at 29 Fathom Bank, yet was not included in Alternative 3. Dan asked why it wasn't included, and if it should be excluded from the study area. Three other banks (Coffee Lump, Claypile, and Applebaum) were excluded

[as per the November 2018 BEWG meeting] because they were not considered biologically significant. Shane Cantrell asked about the bottom habitat of 29 Fathom Bank. G.P. replied that not much ROV data had been collected from 29 Fathom Bank, but some has now been collected. Emma Hickerson reported the ROV surveys from 29 Fathom Bank showed less diversity and less abundance. Buddy said 29 Fathom Bank is a high use area for commercial fishing. The BEWG decided to remove 29 Fathom Bank from the NCCOS study area. Tom Bright added that he remembers 29 Fathom Bank looking biologically similar to the south Texas Banks (not included in the NCCOS study area).

Dan displayed a map of Horseshoe Bank and the human use (fishing pressure) on the south part of this bank. Horseshoe Bank, a deeper water bank located between the East and West Flower Garden Banks, doesn't have a NAZ, primarily because it was deeper than 85 meters and has only recently been mapped and explored by scientists. Dan also pointed out that the Bouma, Rezak, Sidner complex also had high values for fishing pressure on the south end (just north of Tresslar and Elvers Banks).

Dan took the sites from the site selection algorithm, dissolved them into polygons, sorted them by area, and found 18 that were relevant to the FGB Decision Support System needs. Moving forward, he now needs rules of design for drawing lines around the features (i.e., boundaries). Clint shared the history of rectangular vs. octagonal boundaries used by Alternative 3 and Alternative 2, respectively. Clint asked Charles Tyer if rectangles are required, and Charles replied there is no requirement, but if the boundaries are too convoluted, then it's unenforceable. As few points as possible in the polygon is preferred. Clint added if large rectangles are used, then his industry is prohibited from accessing the oil and gas resources. G.P. explained FGBNMS tried to draw boundaries to incorporate any existing management zones, and then heeding OLE's advice to have as few vertices as possible, dissolved them into rectangular and polygonal shapes. Emma added efforts were made by FGBNMS to bring boundary lines to coincide with lease blocks (which are squares).

Clint said his issue with Sonnier, Stetson, Parker, and Alderdice Banks is that they had rectangular boxes put around them by FGBNMS, instead of the boundaries in Alternative 2. Emma and G.P. responded that the DEIS (Draft Environmental Impact Statement) Alternative 3 boundaries were starting points. Clint asked if all the Alternative 3 boundaries were negotiable, and G.P. and Emma both responded affirmatively. Other sanctuary borders were discussed that have curved or resolved boundary edges. Charles issued extreme caution, if straight lines are not used, to not create boundaries with embayments or peninsulas. G.P. added FGBNMS was directed to not establish boundaries based on depth contours. For example, Charles mentioned the "50 Fathom Curve" (established by Gulf of Mexico Fishery Management Council (GMFMC) on maps does not exactly follow the actual 50 fathom contour, but instead is a straight line interpretation of the contour.

Dan requested the group design the polygons, or define rules for creating the boundaries. For example, polygons could be smoothed by having a reduced number of

vertices, buffered, or squared. The group discussed boundaries and how/if they can be enforced. Bill Kiene suggested a series of points from the center of each site, and defining a radius of distance from those points for the boundaries. The group discussed how this scenario would create concavities, which are not ideal for enforcement. Emma suggested looking at the ¼ point system in the lease blocks called aliquots. Bill asked if the aliquot system would be enforceable, and Charles responded it still creates pockets.

Clint said it would be best to not have a platform in the sanctuary or have any well drilled in a sanctuary. Once a sanctuary is designated, then a lease restriction would be put into place. G.P. corrected that leasing restrictions only apply to existing national marine sanctuaries in 2008, as per Executive Order issued by President George Bush. Any sanctuary designated after 2008 would not automatically be withdrawn from leasing. Clint added the President of the United States can withdraw or create Executive Orders at any time in the future. The BEWG then discussed the recent Executive Orders, as it relates to offshore oil and gas access to future sanctuary lands.

Jake outlined that since the BEWG wants to hand off a recommendation to the full Council in May, the next step seems to be setting criteria for boundaries. Leslie Clift offered a suggestion of looking at the total area of a bank and setting a criteria for excluding tails or embayments if the removed area is below a specified threshold percentage of the total area of the bank. Buddy commented these tails or bank edges are usually where fishing effort is concentrated. Jake recommended going through each bank to draw boundaries on a case by case basis.

Clint showed the maps he created in early 2017 with FGBNMS Marissa Nuttall that he called the "NAZ Plus Plan", which contains parts of two plans for each bank, which he called Moore Plans A+B. Plan A contained just the BOEM NAZs with line segments offsetting the 85m contours, and Plan B added some additional topographic edges that reflect the edge of the salt domes. He added each bank is unique and needs a tailored made plan. Clint's set of maps do not contain buffer zones. Jake clarified he wants to see buffer zones, and asked the difference between the Alternative 2 and 3 boundaries, and Clint's maps. Clint said the 500 m (1,500 ft) buffer zone in Alternatives 2 and 3 is too large of a buffer zone for oil and gas to drill the flanks of the salt domes. G.P. added some background on the reason why 500 m (1,500 ft) was chosen as the buffer zone width (e.g., GOOMEX study). Thus, in the Moore Plan A+B, all buffer zones were removed. Emma stated BOEM regulates a 500 ft (150 m) setback from their NAZ, which means the map Clint created for Sonnier in Moore Plan A+B, would still need to be modified (boundary pushed out) because of BOEM's setback rules.

Clint commented on the tremendous amount of biology already being protected by the NAZs. If the NAZ alone became the new Sanctuary, it would be a tremendous addition for the 15 banks to the National Marine Sanctuary System. This would be of no consequence to the oil and gas industry because drilling cannot occur within NAZ. If the boundaries for the proposed sanctuary expansion areas were pushed inwards to the NAZ, then the oil and gas industry could retain access for drilling the salt dome flanks. Clint reiterated when the DEIS was released with Alternative 3 containing the Bouma,

Rezak, and Sidner complex (not included in Alternative 2), his company relinquished their lease block on the south side of Bouma Bank. Yet, he would like to re-lease that block, if the boundary is drawn so that he can drill inside the 5,000 ft (1500 m) band area around the bank (i.e., raised seafloor).

Emma summarized the BEWG is trying to avoid conflict, and boundaries can be pulled inwards; the DEIS was a starting point. Leslie summarized the BEWG seems to be searching for a compromise for boundaries located beyond the boundary lines Clint created in the Moore Plan A+B maps, but within 5,000 feet from the NAZ.

Clint asked the fishing stakeholders for their input. Shane responded the impacts to the fishing industry can be mitigated by the regulatory package, and adopting the GMFMC strategy. Buddy said the GMFMC is in favor of protecting the core biological areas, but the tough part is how to do that.

G.P. commented that we will need to try and make NAZ maps for fishing as Clint has done with the NAZ areas for oil & gas. G.P. cited Sonnier with tiny peaks as an area where an exercise is necessary to address fishing issues.

The maps Clint developed have shape files that can be added to the NCCOS analysis. Dan will create 3 sets of maps that incorporates Clint's maps, and also biology, with buffers of various widths. Clint will create NAZ Plus Plan maps for Elvers and Parker Banks, with Marissa's assistance, now that their new multibeam bathymetry has been acquired. Next date for BEWG is scheduled for February 28, 2018.

8:00 PM Charles motioned to adjourn, Jake seconded. Meeting adjourned.