

FLOWER GARDEN BANKS NATIONAL MARINE SANCTUARY

Sanctuary Advisory Council Draft Meeting Minutes May 17, 2017

Meeting Attendance Roster:

Jimi Mack	Recreational Diving	Present
Jesse Cancelmo	Recreational Diving	Present
Natalie Hall	Diving Operations	Present
Randy Widaman	Diving Operations	Present (late)
James Wiseman	Oil and Gas Industry	Present (webinar)
Clint Moore	Oil and Gas Industry	Present
Scott Hickman	Fishing - Recreational	Present
John Blaha	Fishing - Recreational	Absent
Shane Cantrell	Fishing - Commercial	Present
Buddy Guindon	Fishing - Commercial	Present
Adrienne Simoes Correa	Research	Absent
Larry McKinney	Research	Present
Brian Shmaefsky	Education	Present (webinar)
Jacqui Stanley	Education	Present
Joanie Steinhaus	Conservation	Present (late)
Jake Emmert	Conservation	Present
James Sinclair	BSEE (non-voting)	Present
Mark Belter	BOEM (non-voting)	Present
Leo Danaher	U.S. Coast Guard (non-voting)	Absent
Rusty Swafford	NOAA Fisheries (non-voting)	Present
Charles Tyer	NOAA OLE (non-voting)	Present
Barbara Keeler	EPA (non-voting)	Absent
G.P. Schmahl	Sanctuary Superintendent (non-voting)	Present

Total voting member attendance: 14 of 16 of voting members

Others in Attendance:

Leslie Clift, Kelly Drinnen, Michelle Johnston (webinar), Shelley Du Puy, Emma Hickerson, Bill

Kiene, Doug Peter, Mark Mueller (BOEM), Bill Jones, Randy Clark, Marsh Armitage, Ben Raines, Doug Peter (BSEE), Chas Broughton, Candace Broughton, Bubba Cochrane, James De Spain, Greg Ball, Taylor Borel, Garret King, Franklin Schwing, Nicole Morgan.

Prior to the meeting, the Council watched a portion of a live feed of the Oversight Hearing on Reviewing Recent State Successes with the Rigs to Reefs Program.

9:25 Meeting called to order by Clint Moore.

9:25 Welcome and Announcements – G.P. Schmahl

Today's meeting was run through a webinar.

9:32 Administrative Business – Clint Moore

Adoption of Agenda – motion from Shane Cantrell, second from Scott Hickman, no discussion, all in favor, motion approved.

Approval of February Minutes – motion from Shane Cantrell, second from Jacqui Stanley, no discussion, all in favor, motion approved.

SAC (Sanctuary Advisory Council) Vacancies – Recruitment occurred in February 2017, with 3 seats available: Commercial Fishing (held by Shane Cantrell; 1 term), Conservation (held by Ellis Pickett; 2 terms), and Oil & Gas (held by Clint Moore; 1 term). SAC Applicant Review Subcommittee panel consisted of 3 Council members. Appointees were vetted through the normal process at HQ. Approval came just before this SAC meeting, and announcements were sent out via email on Monday, May 15, 2017. Shane Cantrell and Clint Moore were reappointed for their respective second terms. Joanie Steinhaus, with Turtle Island Restoration Network, was appointed for the Conservation seat. Ellis Pickett's service of 2 terms was thanked for his important contributions to the SAC. Seven applicants applied for the Conservation seat.

Chair elections – G.P. reviewed that non-voting SAC members are allowed to vote in Chair and Vice-Chair elections, and also can hold the seats of Chair and Vice-Chair. G.P. also reviewed the provision that allows SAC members not in attendance to vote via written ballot (ballot was emailed to all SAC members). Clint Moore and James Wiseman were nominated. Voting was closed at 1:30pm CST today to allow for emailed votes.

10:01 Council Constituent Updates

This new agenda item affords each Council member the opportunity to briefly update the SAC on his/her constituents with regards to FGBNMS (Flower Garden Banks National Marine Sanctuary).

Larry McKinney – Last year NOAA signed a cooperative agreement with Cuba on marine protected areas, with FGBNMS as a sister sanctuary. National Academy of Science will fund a study for the next 6 years to look at tourism impacts on marine resources.

Jesse Cancelmo – summarized his engagement on at least a quarterly basis with four, local diving clubs, as well as his involvement at the annual event with Gulf Coast Council. The feedback he receives from his constituent community is generally very positive, including the

support of Alternatives 2 and 3 for the Draft Environmental Impact Statement (DEIS). The Council discussed a dive club Kelly recently learned about, the Gigglin' Marlin Dive Team.

Scott Hickman – is working towards developing a local charterboat and professional fishing association.

Shane Cantrell – has been working with the Gulf of Mexico Fishery Management Council (GMFMC) and working with them and through the Boundary Expansion Working Group (BEWG) on regulations and other aspects of the DEIS.

Jacqui Stanley – Brian Schmaefsky visited Jacqui's classroom recently and gave a lecture to SEEDS (Students Engaging in the Environment through Discovery and Science). The SEEDS then visited Brian's college classroom and lectured the college students on lionfish, orange cup coral, and the importance of FGBNMS. Jacqui recently was a guest on a radio show and she focused her talk on FGBNMS.

Charles Tyer – has been working with the BEWG to ensure any regulations are enforceable. Charles was recently promoted within the Office of Law Enforcement to Assistant Special Agent in Charge for the Gulf of Mexico.

Natalie Hall – has been working with the Visitation Permit Program Working Group as the Chair, and is a member of the BEWG.

Clint Moore – has been working with the BEWG and is a member of several trade groups. He has been encouraging industry to explore areas with ROVs (remotely operated vehicles), as well as encouraging discussion for the development of a NASA version for the national oceans, which could someday be called the National Oceans Exploration Administration (NOEA).

Jake Emmert – The grand opening of 2-year renovation at Moody Gardens will occur next week, including exhibits on FGBNMS and offshore areas of the Texas coast. Jake briefly explained the diver program at Moody Gardens, and will go into greater detail later in today's agenda.

Jimi Mack – has been working with the international dive club in the Dallas area, and also working with youth through education/outreach in marine sciences through NABSYES.org, including an international youth education summit. This year's summit will be June 24-July 3, and she invites any 12-17 year olds.

Randy Widaman – has been visiting the local dive shops and asking for their support for the boundary expansion. Randy has also been communicating with and participating in the Texas Gulf Coast Council. Divers Market will be held October 9 from 10am-2pm in Clear Lake.

Buddy Guindon – has been working with several commercial fishing organizations.

James Sinclair – explained his role at BSEE and how it relates to his seat on the FGBNMS Advisory Council.

Rusty Swafford – explained his role at NMFS and how it relates to his seat on the FGBNMS Advisory Council.

Barbara Keeler via webinar – explained her role at EPA (Environmental Protection Agency) and

how it relates to her seat on the SAC, including the currently open comment period regarding NPDES (National Pollutant Discharge Elimination System).

Brian Schmaefsky – presented recently at Nature Fest as well as the Taste of Science Symposium in Houston.

10:30 Sanctuary Updates – G.P. Schmahl

This year marks the 25th anniversary for FGBNMS.

G.P. updated the Council on NOAA staff changes in the Florida Keys National Marine Sanctuary. Reassignments occurred relating to the management structure in the Southeast region. Reed Bohne, current Regional Director for the Northeast Region and Great Lakes, is serving as the interim Southeast Regional Director.

Volunteer of the Year was awarded to Andrea Stromeyer, who has been active in education/outreach activities for FGBNMS including Discovery Day, SeaSide Chats, and also represented FGBNMS at event booths. Andrea will receive the award at Capitol Hill Ocean Week during June 13-15, 2017, held in Washington DC.

G.P. reviewed the Oversight Hearing on Examining the Creation and Management of Marine Monuments and Sanctuaries, held on March 15, 2017. The hearing specifically referenced the FGBNMS expansion proposal.

Discovery Day was held in March 2017, and was another successful event. Attendance of 1,300 people was lower this year (last year: 5,000), and this allowed for greater ease of the flow in and around the buildings. FGBNMS focused on a marine safety theme. Jacqui Stanley once again painted a mural of sharks and rays for the popular mosaic mural activity.

FGBNMS supported the Turtle Island Network Restoration (TIRN) through the National Marine Sanctuary Foundation (NMSF) for a sea turtle mural project on a building at Menard Park, located on Seawall and 28th Street in Galveston, Texas. FGBNMS staff attended the mural dedication on April 13, 2017.

A virtual dive is now available to the general public, with several 360 degree views (circular photograph) of a virtual dive in FGBNMS. The public is invited to text to phone number 24587 and message “ONMS” or “FGBNMS”. Images are then sent to your phone to view. Goggles can be inserted into smart phones for viewing the images in 3D.

Multibeam bathymetry data was recently acquired, but not yet completely analyzed, for Parker and Elver Banks.

A water quality cruise to FGBNMS on May 7-8, 2017, included installation of ocean acidification instruments.

Data from the 2016 coral mortality event are still being analyzed, but most likely is associated with an anoxic event, predominately occurring with areas located in the lower parts of the reef associated with sand channels. The size of the area affected was 6 acres, and some areas showed up to 70% mortality. A mini-symposium is currently being organized and is tentatively scheduled for November 2017. An event in coastal Panama in a semi-enclosed bay last year that looked similar to the event at FGBNMS, was caused by anoxic conditions from terrestrial run-off event. FGBNMS installed a temperature/salinity instrument near the mortality event

location that monitors daily. FGBNMS will also make more routine drops throughout water column for water quality data to test for various parameters. There is also a turbidity monitor at EFGB (East Flower Garden Bank) that is being routinely monitored now. Mark Belter added random sites outside the study area will be incorporated into the monitoring program. Reef-wide surveys will also be started in 2017. This type of mortality event has not been reported since monitoring began in the 1970s. However, this mortality event was a very localized event which could have happened before but was not found because the area is quickly colonized by algae and not noticeable shortly after the mortality. In addition, the 2016 coral bleaching event appears to have significantly recovered.

G.P. shared information on the recent Executive Order related to expansion of national marine sanctuaries, implementing "America-First Offshore Energy Strategy". FGBNMS has already worked with BOEM to address many of these issues. BOEM gave their initial analysis in November 2016, and BOEM and FGBNMS met in February 2017 to discuss their analysis.

A number of factors could slow down the expansion process: 1) NOAA does not yet have an official Administrator; 2) Presidential Executive Orders; and 3) working with the GMFMC and other government agencies to review and draft regulatory frameworks; and 4) EPA's NPDES permitting.

Clint asked G.P. to update the Council on the HIA389A permit process. G.P. responded FGBNMS has not received the permit yet. A Letter of Authorization, for both the ACOE/TPWD permit and the BSEE permit, would be issued by FGBNMS and should take approximately a month. Clint asked NOAA's letter of No Objection, dated November 28, 2016, to be sent to the SAC.

Clint asked G.P. to report to the Council on the meeting G.P. attended in Houston with American Petroleum Institute (API) on May 11, 2017, hosted by Shell. G.P. responded FGBNMS met with any/all stakeholders that may be affected by the expansion, and as a result, attended this meeting with a variety of members from the oil and gas industry. G.P.'s presentation to API and the trade groups reviewed the DEIS and objections raised during the public comment period. Their perspective is the existing regulatory framework in the Gulf of Mexico is adequate and there is no need for additional protective regulations. With the current regulations in place by BOEM and BSEE, and if the sanctuary expansion did occur, API and the trade groups want the boundaries to be pulled back to the NAZs (no activity zones). G.P. responded the FGBNMS BEWG has been addressing these issues, and will continue to look at all options.

11:45 Ocean Acidification/Climate Change Program – Leslie Cliff / Shelley Du Puy

Leslie and Shelley presented on ocean acidification/climate change, and Leslie presented first.

Climate change can affect national marine sanctuaries (e.g., ocean acidification (OA), increased sea surface temperatures causing coral bleaching, and shifting marine life's feeding, breeding, and migration patterns). FGBNMS last coral bleaching event occurred in summer 2016, and corals have mostly recovered. NOAA is supporting climate change research through the CRCP (Coral Reef Conservation Program) and are drafting climate impact summaries for US Coral Reef jurisdictions that show projected bleaching, OA, and sea level rise. In January 2016, Clint Moore attended the SAC Chair Summit, which included a climate change section (summary given by Clint at January's SAC meeting). Stellwagen Bank and Gulf of Farallones NMSs (national marine sanctuaries) have addressed climate change in which they briefed fellow SAC

members on OA and climate change. Gulf of Farallones formed a Climate Change Initiative, which focuses on international/national capacity building, regional/national partnerships, biennial ocean climate summits, and climate-smart conservation. The program was developed to integrate climate change with mitigation, science, adaptation, monitoring, and communication. Their Initiative recommends to consider how climate change can impact resources, to engage constituents and share with council members, and to identify gaps in management such as climate change indicators, and/or adaptation.

At FGBNMS, climate change efforts have focused on OA which include CRCP, the long-term monitoring program, OA buoy installation, and a Nancy Foster scholar that is studying OA at FGBNMS. Additionally, a NOAA CRCP grant was awarded to Dr. Jeff Maynard in partnership with FGBNMS. This global study will be producing climate model predictions for coral bleaching. Dr. Maynard can present this information at an upcoming SAC meeting. Some of the products expected from his study include a climate impact synthesis, assessment of 50 sites for resilience potential (FGBNMS and Sonnier Bank), and identification of priority research control areas based on assessment of resilience at FGBNMS. Dr. Maynard's project outcomes include a greater awareness starting with the SAC and spreading to stakeholder communities, and providing information for adaptive management within FGBNMS.

Leslie shared some of Dr. Maynard's presentation slides that he presented to FGBNMS staff earlier in the month. Mild bleaching events occur after a DHW (duration of thermal stress expressed as Degree Heat Week) and after 4 DHW can lead to mild/moderate bleaching and after 8 DHW can lead to severe coral bleaching. A government panel, IPCC (Intergovernmental Panel on Climate change) developed RCPs (representative concentration pathways) based on emission scenarios and are a measure of greenhouse gases. RCP 8.5 represents business as usual and RCP 4.5 is used as stabilization scenario, where the model assumes emission reductions follow the pledges made under Paris Accord. Dr. Maynard's team created projections for global coral reefs to suggest when reefs would have severe annual bleaching at RCP 8.5. FGBNMS is expected to have severe annual bleaching by 2041 with RCP 8.5. If RCP 4.5 can be achieved, FGBNMS might have 10-15 more years, which may be enough time for the corals to adapt and acclimate to rising sea temperatures. For OA, aragonite saturation state is expected to decline which results in reduced coral calcification. The recent OA instruments will provide better resolution for this information than the model predictions which are at 4km resolution. The take-home messages are: 1) Climate model projections of thermal stress/bleaching help with understanding climate vulnerability; 2) Spatial variation is great among and within countries, including the US, in what the future holds for coral reefs, in terms of exposure to thermal stress; and 3) Projections can be combined with resilience assessments to examine vulnerability and target management actions. Dr. Maynard's next steps are to revise and finalize the climate impact summary, complete project objectives, collate recent years of FGBNMS monitoring data, calculate scores for resilience indicators and compare relative resilience among sites, and then develop a short-format report of the results.

Leslie introduced Shelley's presentation by explaining in Dec 2016, Shelley completed National Network for Ocean and Climate Change Interpretation (NNOCCI), whose mission is to change the world through better communication techniques around climate change.

Shelley participated in NNOCCI to determine how to discuss climate change in an effective manner. Framing the information is one of the primary tools regarding how information is disseminated. For framing and reframing, the goal is to communicate effectively so that people can see an issue from a different perspective. It may not change ideas, but it could get audiences to listen. The frame elements that are being worked on include tone, values,

explanatory metaphors, and solutions. A neutral tone about climate change establishes the issue as explanatory and reasonable. Values remind people what's at stake and what they care about. Explanatory metaphors are ways to address people to interest them and help them understand. Solutions can be given from anyone. Much of the research came from Frameworks Institute, which can be visited through their website. The bigger picture of this is why does climate change matter to society, how does it work, and how do we improve the situation?

The role SAC could play with climate change is to take what the research team learns about the impact of climate change and OA at NMS, and relay that to their constituents. NCCOI will create workshops for volunteers that can be trained to spread the information. SAC members were encouraged to join an upcoming workshop.

Discussion followed on the different types of corals that bleach, and the succession and ecological implications of opportunistic species. With continuous coral bleaching events, coral cover may decline because the potential for resilience is decreased and corals have less ability to recover.

Discussion turned to SAC engagement with climate change. In 2010, Jacqui Stanley was accepted to the NOAA Climate Stewardship program that has a list serve with suggested reading material, webinars, conferences, as well as information on grants for education/outreach on climate change. FGBNMS is just beginning discussion about what education/outreach should look like for climate change. Decisions have not been made, and everyone is invited to participate in that discussion.

12:30 Boundary Expansion Working Group Update

Tabled until after public comment period.

12:30 Break for Lunch

12:30 Submerged Cypress Forests – Ben Raines

Ben Raines, with AL.com, a media conglomeration of the 3 largest newspapers in Alabama, shared with the SAC a 25-minute video he produced titled "The Underwater Forest", which will be aired on PBS on July 15, 2017. This submerged cypress forest was discovered by Chas Boughton, owner of Underwater Works, a dive shop in Alabama. Presumably, the winds from Hurricane Ivan uncovered the submerged cypress forest. The submerged cypress forest is located 9 miles offshore of Alabama in an approximate water depth of 58 feet. Ben hopes the site will be protected from the take/harvest of structures from the site, yet still allow fishing and diving. Their concern is the take/harvest of structures on the site.

1:00 HIA389A – Marsh Armitage

Tabled until after public comment period.

1:25 Public Comment and Q&A Period

Billy Wright – commercial bandit fisherman out of Galveston, TX; supports Alternative 2 and supports GMFMC recommendations to FGBNMS.

Gregory (aka Hans) Guindon – bottom longline and bandit commercial fisherman out of Galveston, TX; supports Alternative 2 and supports GMFMC recommendations to FGBNMS.

Bubba Cochrane - commercial fisherman out of Galveston, TX; supports Alternative 2 and supports GMFMC recommendations to FGBNMS for fishery regulations; thinks submerged cypress forests should be protected from the take/harvest of the structure, but allow fishing.

Greg Ball – fisherman member of Charter Fisherman's Association (CFA); supports Alternative 2 and supports GMFMC recommendations to FGBNMS; does not support protection of cypress forest; supports spear fishing by breath holding but not by scuba diving in the expanded banks.

Taylor Borel – member of CFA, supports Alternative 2 and supports GMFMC recommendations to FGBNMS for regulations of pelagic fisheries; does not support the protection of the submerged cypress forest.

James De Spain – member of CFA, supports Alternative 2 and pelagic spearfishing access; supports GMFMC recommendations to FGBNMS; does not support the protection of the submerged cypress forest.

Garret King – fisherman out of Galveston, supports Alternative 2 and GMFMC recommendation to allow historical fishing at any expanded sanctuary areas.

Submerged Cypress Forest, continued

When public comment closed, discussion amongst SAC members ensued regarding the submerged cypress forest. Buddy Guindon said Alabama is not supporting these areas to be included in a sanctuary designation, but does support taking steps as a state to protect this area. Shane added the area could and maybe should be protected, but should not be designated as a NMS, but instead as a HAPC (habitat area of particular concern) through GMFMC. Rusty Swafford addressed the issue of the site becoming a HAPC, but the GMFMC would first have to identify it as an EFH (essential fish habitat). Currently, NMFS would not review it until the time if/when EFH is designated and then identified as a HAPC. Mark Belter noted the site would need to meet specific requirements to be designated as a HAPC. BOEM does not protect sites, only the activities that BOEM regulates at sites within their jurisdiction.

Ben noted part of the site is uncovered, but part of this ancient tree forest is still covered under 9 feet of sediment. Ben argues that this site should be federally protected. No regulations are in place to prevent people from removing the stumps. Clint inquired on the area of its footprint, to which Ben replied 0.5 square mile. Buddy noted the federal process is slow. Ben replied the process for protection for this site has been underway for 4 years. Ben's concern is a barge with A-frame could remove large logs, and that this natural wonder needs to be protected. Currently no regulations are in place to prevent removal. Mark clarified that BOEM's archaeologists have been working with Ben's team, and will be evaluating the activities. Jacqui asked if the local diving communities would support the protection and would regularly visit the site. Ben responded yes. G.P. reminded the Council the submerged cypress forest was an area considered but rejected in the DEIS. Ben will be pursuing a new national marine sanctuary designation. Scott's constituents in Alabama report the site is mostly covered up again.

1:30 HIA389A – Marsh Armitage

Marsh Armitage with W&T presented to the Council a brief history on HIA389A, located within

the FGBNMS boundaries. HIA389A went offline in 2011, and began to be plugged in 2012. In 2014, the partial removal permit process began. After the ACOE permit was issued last week, the remaining wells can be plugged and will be finished in July 2017. Other work will be conducted to remove the topside structure. Their goal is to complete the decommissioning in 2017. After the Environmental Assessment is approved by Texas Parks & Wildlife Department (TPWD), BSEE will review and then issue a permit to W&T. FGBNMS will review this permit, and then could issue a Letter of Authorization. The process is behind schedule and has been slow. Jesse asked if Marsh is confident the partial removal will be completed in 2017. Marsh responded no, but hopes the permits will be in place, and W&T will be prepared to complete their process in 2017. Clint asked about the other decommissioning permits for the other W&T platforms. Marsh responded TPWD is waiting on the ACOE (U.S. Army Corps of Engineers) permits. Clint asked about W&T's annual cost for the delay in permits, and Marsh responded they do have those figures but will not be disclosing this information. Marsh recommended FGBNMS to remain in contact with W&T, as FGBNMS staff have an upcoming June trip to HIA389A. Jesse echoed the diving community's support of this platform being left in place (partially removed). Platforms HI385 and HI379, located near the WFG, will hopefully soon be in the Rigs to Reefs program, with plans to be reefed in place.

1:47 Boundary Expansion Working Group Update – Clint Moore and Shane Cantrell

The fifth BEWG meeting was held on April 13, 2017, where the group further reviewed and discussed the existing and potential regulations for fishing, spearfishing, and O&G (oil and gas) leasing, produced water and mud shunting discharges, and geophysical nodes. They compared the current regulations for these users to future area regulations. The group also reviewed and discussed NOAA's NCCOS (National Centers for Coastal Ocean Science) boundary mapping project that can aid in assembling boundary expansion maps. The group began reviewing and discussing the economic impact of expansion and analyses in DEIS and outside studies.

The sixth BEWG was held on April 27, 2017, where the group further reviewed and discussed existing and potential regulations for fishing, O&G, and spearfishing, including a 1995 GOOMEX water-based drilling fluid study. The group discussed tighter buffer zones.

The seventh BEWG was held on May 11, 2017, where the group concluded phase 1 discussions of potential regulations for fishing, O&G, and spearfishing. The group also reviewed and engaged NOAA's NCCOS boundary mapping process, as well as the potential assessment matrix processes and parameters. The assessment matrix was developed and used in the 2007 BEWG process. Categories in the assessment matrix include zone priority index, threat index, biological connectivity, public and sanctuary priority index, and structural connectivity. The criteria matrix table produced as a result of the assessment matrix resulted in the overall rankings of many areas/banks.

Future BEWG meetings: eighth meeting planned for Tuesday, May 23, and other future meetings before the SAC meeting in September 2017. BEWG will continue with the mapping project with NCCOS, as well as finalize the regulatory regime. The BEWG may be ready to make a formal recommendation to the SAC at the September 2017 meeting. The SAC could consider and have a potential action item at the November 2017 SAC meeting.

Mark Belter asked about the GOOMEX study and the changes since then in drilling operations. Clint responded with information on the new technology and materials used for drilling muds and mud systems, such as managed pressure drilling (MPD) and synthetic drilling fluids (SDF). Industry wants to drill vertical exploratory holes (not directional drilling) because of the steep angle of the sediments that trap the oil & gas against the salt dome flanks. Mark explained the

difference between drilling muds and cuttings and the area of the footprint for each.

Clint mentioned Emma's research for her thesis which indicated the home range of sea turtles and that the BEWG will consider this information when recommending sanctuary buffer zone widths.

Emma asked about the requirements in place for sand blasting on the platforms, and asked if this requirement is for all platforms or only on platforms within certain areas. Clint responded a lot of the regulations are focused on zero impact, and the requirements in place for sand blasting are in place for all platforms.

Mark asked about the categories in the ranking criteria titled structural connectivity and biological connectivity. G.P. responded NOAA looked at bathymetry for structural connectivity. For biological connectivity, NOAA quantified this through genetics of marine life species, but more so for species overlaps between features from fish counts, general observations, individual movements of marine life species through tagging studies, larval dispersal, similarity of areas and the distance associated with each relative to existing sanctuary borders. Emma added that after Deepwater Horizon event, NOAA has a much broader view of the area, and is learning more about the "underwater highways" these structures provide.

2:15 National Centers for Coastal Ocean Science (NCCOS) – Randy Clark

Randy shared a presentation with the Council titled, "NCCOS and ONMS Evaluations of Spatial Alternatives". NCCOS received funding to support a project with FGBNMS. Their biogeographic assessment approach is a systematic approach for developing decision support tools, which can be used and assessed by the BEWG. A similar project was conducted at Grays Reef National Marine Sanctuary for their Research Areas, whereby NCCOS worked mostly with recreational fishermen to locate the areas and frequency where fishing takes place, as well as the biology of those areas. After the analysis, the group came to a consensus on a support decision. NCCOS also served as decision support for the Florida Keys National Marine Sanctuary. Moving forward, NCCOS will work with the BEWG to set up a work plan, and begin to synthesize data (from FGBNMS, BOEM, NMFS, O&G, Recreational and commercial fisheries, US Navy, and others). NCCOS will use the Marxan program, which is a decision support tool generally used for identifying ecologically important areas and designing networks of natural resource management areas.

2:30 SAC Letter Re: Congressional Hearing – Clint Moore

The SAC wrote a letter to be sent to John Armor regarding comments made about the FGBNMS during the congressional hearing on March 15, 2017.

Scott asked if the letter could include a sentence to request recommendations from SAC be weighted in management actions, such as, "We all hope sanctuary management will take our forthcoming boundary expansion recommendation to heart and give it maximum consideration."

Leslie will format the letter with explanations for any and all abbreviations. The letter will be on SAC letterhead with the SAC meeting's date, May 17, 2017.

Motion from Jacqui Stanley to approve the letter, pending Leslie's edits as directed by the Council, to be signed by the SAC Chair. The motion received a second from Buddy Guindon, no discussion, all in favor, motion approved.

2:37 SAC Chairs Conference Meeting – Clint Moore

The third SAC Chair call took place on March 23, 2017. Each Chair talked about their SAC for 6 minutes, and then fielded questions and/or suggestions for 1 minute. Clint shared the following points from FGBNMS;

1. Mandatory visitor permitting program
2. Seaside Chats
3. Ocean Discovery Day
4. Enforcement panel discussion letter
5. Signed on to Galveston's plastic bag ban
6. Mass mortality event – Summer 2016
7. Lionfish invasive species challenges
8. Boundary expansion update

Learnings from other SAC Chairs:

1. Monitor - anniversary celebrations
2. Gulf of Farallones – Sediment Management Working Group
3. Gulf of Farallones – Low Overflight Working Group (e.g., drones over marine mammals)
4. Cordell Bank – has a Local Friends Group
5. Humpback Whale – continuing management plan issues
6. Monterey Bay – tidal energy lost funding
7. Channel Islands – marine vessel speed reduction program
8. FKNMS – “Blue Angler” certification program for fishermen; already has “Blue Diver” certification program
9. Thunder Bay – doubled the number of buoys from 20 to 40
10. American Samoa – “Okeanos Explorer” recently mapped seamounts in the mesophotic coral communities
11. American Samoa – Sanctuary Fishing Classic Tournament, an annual, recreational fishing tournament. Pictures are submitted, winners are picked every week, and prizes are awarded according to pictures submitted.
12. Olympic Coast – became an ocean acidification sentinel site.
13. Grays Reef – discussions ongoing whether sanctuary is “exclusionary” vs. multi-use
14. Grays Reef – diversity statement for SAC appointments
15. Stellwagen Bank – Small Boats/Whale Interaction Working Group

Learnings from John Armor

1. Confirmation of Commerce Secretary Wilbur Ross
2. New NOAA Administrator not likely until November
3. More budget cuts
4. New NMSF (National Marine Sanctuary Foundation) President, Kris Sarri
5. Draft NMSF Strategic Plan has been published
6. NMS Advisory Council fishing summit results
7. House Committee on Natural Resources Oversight

The next SAC Chairs conference will be mid-November 2017.

G.P. shared that NMSF Kris Sarri is tentatively scheduled to attend the November SAC meeting.

Kelly updated the Council on the six FGBNMS email lists, of which she manages five and Emma manages one. A new format will be rolled out on May 4, 2017, for the email list

subscriptions, available online through the FGBNMS website. Kelly shared the stakeholder featured newsletter from Monterey Bay is similar to what FGBNMS is already sharing with their email lists, but FGBNMS usually only sends one story at a time. Natalie commended Kelly for her outreach through these five email lists.

3:04 Moody Gardens - Volunteer Diver Program - Jake Emmert

Jake Emmert is the Dive Safety Officer at Moody Gardens. Jake shared the experiences of divers in the volunteer diver program at Moody Gardens. Divers volunteer daily and of the approximately 2,000 dives conducted each year, 40% of those dives conducted by volunteers. Moody Gardens Dive Team numbers approximately 83 divers: (20 staff, 54 active volunteer divers, and 8 more in training). Registration is open twice per year. Diving is used for a variety of things including: animal husbandry tool for animal diet preparation, animal feeding, water chemistry, exhibit scrubs and maintenance, acrylic cleaning, guest interaction, “behind the scenes” cleaning, and the new in-water presentations using full-face mask communications. A commercial dive team spent 3 months cleaning and polishing every inch of acrylics in all of the aquarium exhibits. To become a diver, there is an application process twice each year. Successful applicants undergo an orientation, medical screening (average cost of \$225, good for 5 years under the age of 40), swim test, emergency management training (DAN diving First Aid for Professional Divers; good for 2 years), and a checkout dive. Volunteers are asked to make at least a year commitment for at least 8 hours per month in two 4-hour blocks. Some volunteers have been in the program for 18 years.

Moody Gardens is doing a members' fundraising event for FGBNMS as part of their grand opening, where the donations will be channeled to FGBNMS.

Jake shared his experience with conservation projects in partnership with Moody Gardens, as well as memberships and relationships with other partners. The new 33,000 gallon exhibit showcases the marine life on artificial reefs in the Gulf of Mexico.

Randy Widaman asked if Moody Gardens interacts with the Texas State Aquarium in Corpus Christi. Jake responded they are going through a big renovation, scheduled to be completed in June 2017, but as part of the American Zoo Association, Moody Gardens does interact with other aquariums and zoos.

3:32 Agency Reports

Leo Danaher (USCG) – absent

Barbara Keeler (EPA) –left early (webinar): no report

Rusty Swafford (NMFS) – left early; no report

Mark Belter (BOEM) – left early; but updated SAC during earlier part of meeting

James Sinclair (BSEE) – getting annual funding to NOAA for long-term monitoring for Stetson. HIA389A update was covered earlier in the agenda.

Charles Tyer (OLE) – left early; no report

3:34 New Business

Clint Moore was elected Chair for a second term.

G.P. shared the virtual dive images available on the NMS website for several images of the FGBNMS, but also available for American Samoa, Florida Keys, Grays Reef, and Thunder Bay.

Shane requested the SAC invite someone to present to the SAC on lionfish traps. G.P. said this invitation could be extended for the September or November SAC meetings, and would also like to coordinate with Steve Gittings who has been working on lionfish traps too.

3:40 Meeting Adjourned - Motion by Natalie Hall, second by Jake Emmert. All in favor.
Approved.

Next SAC Meeting scheduled for September 20, 2017.