



**CORDELL BANK and GREATER FARALLONES NATIONAL MARINE SANCTUARIES
JOINT SANCTUARY ADVISORY COUNCIL MEETING**

Thursday, February 10, 2022

9:00am – 2:00pm PST

Google Meet

MEETING HIGHLIGHTS

Note: The following notes are an account of discussions at the Sanctuary Advisory Council meeting and do not necessarily reflect the opinion or position of the Cordell Bank National Marine Sanctuary (CBNMS), Greater Farallones National Marine Sanctuary (GFNMS), or the National Oceanic and Atmospheric Administration (NOAA).

Copies to: Bill Douros, Office of National Marine Sanctuaries, West Coast Regional Director

Call to Order

Meeting called to order at: 9:00am

- Abby Mohan, GFNMS Advisory Council (GFNMSAC) Chair, facilitating through public comment. Kai Martin, CBNMS Advisory Council (CBNMSAC) Chair, facilitating from public comment through the end of the meeting.
- Three new GFNMSAC members to be introduced during the GFNMSAC Business agenda item.

Roll Call

GFNMS ADVISORY COUNCIL:

Voting Members: **12 present (quorum met)**

At-Large Marin: George Clyde	Education: Bibit Traut (Vice Chair)
At-Large Mendocino/Sonoma: Cea Higgins	Maritime Commercial Activities: John Berge
At-Large SF/San Mateo: Absent	Maritime Recreation Activities: Abby Mohan (Chair)
California Natural Resources Agency: Michael Esgro (for Mark Gold)	National Parks Service: Craig Kenkel
Commercial Fishing: Barbara Emley	Research: Vacant
Conservation: Francesca Koe	U.S. Coast Guard: LT Chris Bell
Conservation: Kathi George	U.S. Fish & Wildlife Service: Gerry McChesney (for Chris Barr)

Non-voting Members: 3 present

Channel Islands NMS: Absent
Monterey Bay NMS: Lisa Wooninck
National Marine Fisheries Service: Jennifer Boyce
Youth: Ezra Bergson-Michelson

Alternates Present: 6 present

At-Large Marin: Richard James
At-Large Mendocino/Sonoma: Michael Kleeman
Commercial Fishing: Sarah Bates
Conservation: Dick Ogg
Education: Mary Miller
Maritime Activities - Commercial: Julian Rose

CBNMS ADVISORY COUNCIL:

Voting Members: **9 present (quorum met)**

At-Large Marin: Absent	Education: Vacant
At-Large Marin: Absent	Fishing: Dick Ogg
At-Large Sonoma: Frank Capurro	Fishing: Noah Wagner
At Large Sonoma: Steve Tubbs	Maritime Activities: Absent
Conservation: Scott Artis	Maritime Activities: Kai Martin (Chair)
Conservation: Absent	Research: Jeff Dorman
Education: Irma Cuevas (Vice Chair)	Research: Chrissy Piotrowski

Non-voting Members: 2 present

Monterey Bay NMS: Lisa Wooninck
National Marine Fisheries Service: Absent
U.S. Coast Guard: LT Chris Bell

CBNMS/GFNMS staff present: Maria Brown, Superintendent; Jordan Gorostiza (Affiliate), Advisory Council Coordinator; Max Delany, Resource Protection Specialist (Permits, Enforcement, and Emergency Response), Sara Hutto (Affiliate), Greater Farallones Climate Program Coordinator; Karen Reyna, Resource Protection Specialist; Lilli Ferguson, Resource Protection Specialist; Brian Johnson, Deputy Superintendent

Others present: Deb Self, Greater Farallones Association (GFA); Jessica Morten, GFA; Alayne Chappell, GFA; Andrew Ireland, USCG; Mary Callahan; Jacqueline Moore, Pacific Merchant Shipping Association; Susan Kirks, Madrone Audubon Society, Sonoma County; Mary Jane Schramm, Marin Audubon Society, Conservation Committee; Barbara Salzman, Marin Audubon Society

GFNMSAC Business

Abby Mohan, SAC Chair

Jordan Gorostiza, SAC Coordinator

GFNMSAC MOTION: Approve December meeting highlights

Vote: 12 yes, 0 no, 0 abstain

Motion passes.

Review Agenda

Abby reviewed the day's agenda.

Swear-in New Members

Abby briefly introduced new GFNMSAC members and led the swearing-in ceremony.

- Richard James is the new Community-at-Large, Marin Alternate. Richard is a fourth generation Californian originally from Cupertino who moved to West Marin in 2008. Years of volunteering and exploring at Point Reyes Seashore brought the immensity of the marine debris problem into painful focus, such that he has spent the past thirteen years bailing out an overflowing ocean full of toxic plastic with his backpack. He sits on the board of the Tomales Bay Watershed Foundation and is a member of the Chileno Valley Newt Brigade.
- Michael Kleeman is the new Community-at-Large, Mendocino-Sonoma Alternate. Michael is a Senior Research Fellow in the UC system and lives in the Sea Ranch in North Sonoma. He has been living in the region of the Sanctuary for 40 years and spent much of it on or in the water. For 26 years, Michael worked as a volunteer at The Marine Mammal Center and is the publisher of Wild Hope, a magazine designed to share stories of people helping other species. He looks forward to supporting the important mission of the Sanctuary.
- Dick Ogg is a new Conservation Alternate. Dick has been a commercial fisherman for the last 20 years and currently owner and Captain of the F/V Karen Jeanne. He's actively involved politically to support and maintain a healthy environment and thriving fisheries. An avid sportsman all his life, Dick has fished and dove along the Sonoma County coast for over 50 years. He has served on the Dungeness Crab Gear Working Group, Dungeness Crab Task Force, California Salmon Council, the Spud Point Advisory Board, and as the Vice President of the Bodega Bay Fisherman's Marketing Association.

Potential Charter Amendment

- Before discussing charter amendment, Jordan informed the council that headquarters had passed down a new option for what's called Waiver #4. The previously existing waivers, and when they are applicable, are included in the SAC Handbook on page 33. The waiver can be used at the discretion of the superintendent to allow an alternate who has served three consecutive terms as an alternate to apply to a fourth term in the primary position of the same seat.
- Jordan provided a brief overview of the needed charter amendment to remove the non-voting CBNMS seat from the GFNMSAC charter since Maria Brown now serves as superintendent for both sites and, thus, cannot advise herself on the GFNMSAC advisory council. The CBNMSAC has already made a change to their charter to reflect this but the GFNMSAC has not yet done so.

GFNMSAC MOTION: To approve the change to the GFNMSAC charter to remove the non-voting Cordell Bank National Marine Sanctuary seat

Vote: 12 yes, 0 no, 0 abstain

Motion passes.

Brief update from Vessel Incidents Subcommittee

Cea Higgins, Subcommittee Chair

- The subcommittee decided to change its name to the “Vessel Incidents Subcommittee” because the term *derelict and abandoned vessels* did not cover the topic well enough.
- Cea made an open call for more GFNMSAC members to join the subcommittee.
- Cea outlined the areas where the subcommittee could make recommendations, identified potential experts to present to the subcommittee, and the subcommittee’s meeting schedule.
- Abby Mohan, Michael Kleeman, Richard James, John Berge, Dick Ogg, and Barbara Emley volunteered to join the subcommittee.

Richard James: I saw a large boat listed for sale on Craigslist. The ad stated that the boat is registered with the USCG, and therefore, the buyer can avoid having to get insurance. It was interesting to see how registration with USCG was included as a reason to not get insurance; something for the subcommittee to consider.

John Berge: This topic is of interest to me. I’ve mostly looked into the topic as it relates to the San Francisco Bay and issues of homelessness.

Lisa Woonick: MBNMS is also looking into this issue. Perhaps some of the MBNMSAC members can participate in the GFNMSAC subcommittee. MBNMS has a legal expert looking into this topic.

Cea: I am definitely interested in that. Let’s have Maria and Jordan weigh in on having MBNMSAC members join the subcommittee.

Karen Reyna: It’s great that more council members are joining the subcommittee. With timing to consider, the subcommittee has the option of providing its recommendations to the council in two parts, with timely recommendations coming in before the management plan review and then further recommendations at another time.

Dick Ogg: There’s an issue in that you can sell a boat in any condition. Maybe there’s a way to implement a survey requirement prior to a boat sale to provide evidence that the boat was sound before the sale.

Jordan Gorostiza: If others are interested in joining the subcommittee, please email me and we will move forward from there.

Cordell Bank and Greater Farallones National Marine Sanctuaries Superintendent’s Report

Maria Brown, CBNMS/GFNMS Superintendent

[View Slides](#)

- Maria provided program updates for administration/operations, conservation science, resource protection, education/outreach, and permits for both sanctuaries.
- Maria also highlighted CBNMS/GFNMS planned activities to celebrate the Office of National Marine Sanctuaries (ONMS) 50th Anniversary. She asked if council members had any other ideas for celebration activities.

Francesca Koe: Will the 50th anniversary celebration coincide with the SAC retreat?

Maria: Yes, the 50th anniversary is in October and the council retreats are usually scheduled for sometime in October.

Julian Rose: Can you explain more about how the ship strike data is packaged for the USCG Port Access Route Studies (PARS)?

Maria: Approximately 50 different datasets of ship strike data were presented to the Coast Guard, data they said they were interested in. Some were partner or NOAA Fisheries datasets. We provided our sanctuary info and gave them contacts for other entities (like NOAA Fisheries), if they are interested in their datasets. The USCG put out a public call for data to inform their process.

Mary Miller: Regarding pivoting to virtual events, I realize that's been out of necessity but I'm wondering if there will be more in person opportunities planned going forward? For example, on Crissy Field or other outdoor locations where people can gather.

Maria: We are planning for in-person events in October. The 50th anniversary event, for example, is on October 22nd and that will be in person. We are hoping that by the summer we can start doing more in-person programs.

Bibit Traut: For the 50th anniversary, I remember years ago they had a poetry contest. I'm wondering if we can do that again? It would be a low-tech way to get people from all socioeconomic levels, and both kids and adults, involved.

Mary Miller: Regarding the white shark tour boat permit, it says "TBD". Is that because you are reviewing potential impacts from those activities?

Max Delaney: Yes. We are currently assessing that application. We always assess potential impacts to sanctuary resources. This permittee has had this permit (education permit for tour boats) in the past to operate near the Farallon Islands but with limitations, including only using decoys to attract white sharks and not getting too close. It is an education permit for tour boats. They are asking for different things this time so we are assessing.

Sanctuary Enforcement Update

Max Delaney, GFNMS

LT Chris Bell, U.S. Coast Guard

- Max informed the councils that the U.S. Fish and Wildlife Service (USFWS) has requested information on consultation 304d of the National Marine Sanctuaries Act regarding their proposed invasive mouse eradication project on the Farallon Islands. There are no actions in front of the sanctuary for review at this time.
- Max provided an update on the *American Challenger* incident:
 - A Unified Command between the U.S. Coast Guard, California Dept. of Fish and Wildlife Office of Spill Prevention and Response (OSPR), Marin County Sheriff's Office of Emergency Services, and GFNMS continues to work on response and salvage planning
 - US Coast Guard Commandant has approved Destruction Memo / Sector SF participation in response
 - EPA led drone overflight surveys conducted in December 2021
 - Marine debris cleanup planned for February/March 2022
 - Vessel position has shifted; Salvage Plan to be revised after winter swells subside

- LT Chris Bell informed the councils that major fisheries the USCG oversees have been closed over the past quarter since their last report to the council. The salmon fishery was closed last fall and there was a late start for the Dungeness Crab fishery. As of now, there have been 27 boardings and 4 violations. We are working on making sure fishing vessels are up to date on their reports.

Cea Higgins: Who is participating in the marine debris clean-up planned for February and March?

Max: The EPA is leading that effort. It's unclear who else will be lending time; probably OSPR.

George Clyde: Do you have any update on the efforts to recover costs?

Max: It has been referred to multiple enforcement agencies, but I don't have more information to provide at this time.

Monterey Bay National Marine Sanctuary (MBNMS) Superintendent's Report

Lisa Wooninck, MBNMS Superintendent

[View Slides](#)

- Lisa provided updates on MBNMS 30th/ONMS 50th Anniversary activities, research, and education.
- Dates for MBNMS 30th/ONMS 50th Anniversary events:
 - Whalefest - March 19 and 20: Science symposium and family friendly exhibits on Monterey Wharf and Plaza
 - Shared Adventures - July 9: Recreation for 'all abilities' with a focus on recreational fishing from the Santa Cruz Wharf.
 - Stamp unveiling with USPS - August 5: Located at Sanctuary Exploration Center
 - Coastal Cleanup Day - September 17
 - Sanctuary Fest - Sept 18: Family friendly exhibits on Sanctuary Exploration Center Plaza and Santa Cruz Wharf

Public Comment

[View submitted comments](#)

BREAK

Joint GFNMSAC-CBNMSAC Working Group on Reducing Ship Strikes to Whales in Sanctuaries: Recommendations, Discussion, and Action

Jeff Dorman, CBNMSAC

Julian Rose, GFNMSAC

[View Slides](#)

- Jeff Dorman and Julian Rose presented the Ship Strike Working Group's (SSWG) goals, process, and findings to the councils.
- The Working Group Objective was to provide input on three conceptual designs to reduce the risk of ship strikes in the San Francisco Bay region. The three conceptual designs were:

1. Implement a year-round voluntary vessel speed reduction (VSR) request to all vessels 300 GT or larger throughout GFNMS and CBNMS.
 2. Alter the trajectory of the northern lane and extend the northern and western shipping lanes farther west, with a year-round voluntary VSR throughout GFNMS and CBNMS.
 3. Extend the western traffic lane to the sanctuary boundary with a year-round voluntary VSR throughout GFNMS and CBNMS, and remove the northern traffic lane.
- All members of the SSWG solicited feedback on the three conceptual designs. Feedback was solicited via email, phone, and in person (or virtual meetings). The members generally worked in coordinated subgroups (Shipping/Maritime, Fishing, Research/Conservation) to canvas as large of a population as possible. The results of those meetings, including summary write-ups of their efforts, are summarized in Appendices 2-4 of the final report.
 - Julian Rose noted that of the three conceptual designs presented to the working group to evaluate and provide feedback on, only one of them (Conceptual Design #1) is truly within the purview of the Greater Farallones and Cordell Bank National Marine Sanctuaries. Conceptual Design #1 would be able to be implemented without the involvement of other outside entities. The removal or amendment of any shipping lanes that are considered in Conceptual Designs #2 & #3 would require the involvement and agreement of the United States Coast Guard and other regulatory bodies. It is generally agreed that the process to remove or amend shipping lanes is a multi-year process. For that reason, the group broke up management actions into short-term (months to year) and long-term (multiple years) actions that we recommend the sanctuaries consider.
 - Ship Strike Working Group Recommendations:
 1. **Science and Research Recommendations:** We recommend that CBNMS and GFNMS collaborate with research experts to model the three management scenarios considered by the SSWG. Additionally, we recommend that models are run that consider both seasonal and year-round VSR, and voluntary and mandatory VSR.
 2. **Short-term Management Recommendations:** We recommend that GFNMS and CBNMS implement year-round voluntary VSR for all vessels greater than 300 GT transiting within the sanctuary boundaries of GFNMS, CBNMS, and the MBNMS northern management area. Since discrepancies in transit time from the various approaches to each of the three shipping lanes may have an impact on usage of each of the lanes, sanctuary staff should continue to monitor and evaluate vessel traffic behavior and should assess the effectiveness of these management measures. Though it was not included as a potential management strategy for the group to consider, depending on the efficacy of the proposed voluntary VSR actions, we think GFNMS and CBNMS should also explore and consider mandatory speed limits, similar to what is implemented by NOAA on the east coast, if deemed necessary to achieve the stated goal of 50% reduction in fatal ship strike risk.
 3. **Long-term Management Recommendations:** We recommend that any changes to the shipping lanes be dependent on scientific studies evaluating the potential decrease in whale mortality by either removing the northern lane, altering the northern lane, or extending the western lane. We recommend that CBNMS and GFNMS work with research experts to model the risk reduction associated with these spatial changes, share research findings with appropriate stakeholders, and work with the USCG and the U.S. West Coast Port Access Route Study (PARS) to change the lanes that would have the most desired impact.

Barbara Emley: I just want to highlight that the shipping industry is allowed the voluntary process; but for the fishing industry everything is mandatory. We do not get the option for things to be voluntary.

Dick Ogg: We have to restrict our ability to harvest when there is marine life concentration, and that impact is significant to us. The fishing industry would make efforts to mitigate harm to marine life either way, but the mandatory restrictions financially impact our communities. We work very hard at reducing our interaction with marine life. It would be great if we have that level of consideration and cooperation from the shipping industry.

Mary Miller: Regarding reducing speeds, there is the benefit of reducing risk to whales, but also other benefits like reducing emissions and sound pollution; and reduced sound is not just a benefit to whales, but other animals that use sound for communication and navigation.

Julian Rose: It also saves shipping companies money in fuel.

George Clyde: I was a part of both councils during the past council ship strike recommendations. I recall the concern at the time was there would not be sufficient voluntary cooperation and we're still at only 64%; and models show that even at 95% it wouldn't be adequate to protect whales. One thought in terms of whether it should be voluntary or mandatory: the voluntary program has not been as successful as they hoped at the time.

Julian Rose: We recommend running models to evaluate effectiveness.

Kai Martin: It's important that we capture the restraints. In the longer term, we have the approach of changing lanes/traffic separation schemes. This involves the USCG and the International Maritime Organization at the UN level (traffic separation schemes are managed internationally). This is a multi-year effort. So, what can we affect in the shorter term: seasonal changes. This year, two advisories extended the season beyond the normal timeframe, starting to see changes when the seasons will start/end - not just May-Sept when more marine life are around. There were more options that came out during working group discussions but those took us further out from these three options that we were charged with considering. It will be good to have more follow-up down the road.

Richard James: What are the incentives for rewarding ships who travel slowly?

Kai Martin: There is currently a reward system with some financial incentives. Some companies are putting it into their sustainability and environmental/social governance goals, so even without the incentives they would still be trying to hit the goals as part of their sustainability plans.

Jess Morten: We have our incentive/reward program. The VSR programs at the ports are also incentive based but not just financial. There are docking fee subsidies related to VSR requests. There are also public support benefits. Our Protecting Blue Whales and Blue Skies program uses financial incentives with different levels, and public support incentives: the sapphire tier is the highest and they got \$30,000 for the 2020 season (this is all grant based through the California Marine Sanctuary Foundation). Financial rewards are associated with high cooperation, but the public recognition part is really important and keeps getting more important. We are seeing more focus on conservation from corporations in general. Regarding the East Coast effort, the rates of compliance on the East Coast have a lot of variability, even with a federal rule they are not necessarily slowing; but where we have both federal regulation and voluntary programs (with public recognition components), we see high cooperation rates (as high as 90 percent).

Mary Miller: What about establishing dynamic management areas and real time sighting tools, so the ships know in real time that they are in danger of actually striking a whale.

Maria Brown: This did come to the sanctuary during the first vessel strike council recommendations. We tried it for multiple years, but it was beyond the capacity of the sanctuary. Whale movement was too dynamic; we would send notices for ships to move or slow, and the whales would move and end up in the other lane where

the ship was now headed. So, the whales would be in more danger. We tried Spotter Pro and Whale Alerts apps, but didn't have the capacity to have a full dynamic real time program.

Kathi George: We have a project underway to learn more about real time whale sighting tools. I will share more during the next meeting.

Kai Martin: We had signed up for the apps, but stopped sending alerts to captains because they were just too impractical. The captains would try, but end up not being able, to respond quick enough or safely enough. It needs to be more practical. Any legacy knowledge from you, Maria, is appreciated. Regarding emissions - this is good to focus on. There is pressure to lower emissions; the incentive is that companies will get more cargo. This is the public influence (outside the means of these councils).

Dick Ogg: In the Dungeness crab gear working group, we are looking at the ability to predict where whale migrations and movements might be, looking at temperature, food sources, etc. It will be advantageous for both shipping and crab fishing industries. We are optimistic that we can start predicting better in the long run. We have seen it with blue whales, we see them move with food sources.

John Berge: Regarding data that provides a more dynamic whale avoidance strategy, back in 2012, we were excited about the prospect, but real world problems came up. It became clear over time that as good as it is to have data, captains need a set schedule. Seasonal management became more reasonable because they could plan. If they have to speed up, slow down, etc. on a whim, they can't plan for arrival times. There is push back from captains who are focused on arriving on time, so need balance between moving around whales and meeting schedules.

Maria Brown: If the councils adopt the working group's report, the recommendations in the report become recommendations of the councils, and then the councils can forward to the sanctuaries. Any voting members of the council can make a motion to adopt.

Jeff Dorman: I have a proposed amendment to this draft. We noticed after completing it that we didn't state the sanctuary goal. I suggest we add "Sanctuary Goal: Reduce the risk of lethal ship strikes to endangered and threatened blue, humpback, and fin whales by 50% throughout CBNMS and GFNMS" to page 14.

Francesca Koe: I like the articulation of the aspirational goal, even if it's not a defined goal.

George Clyde: Is it reducing the "risk" or the "ship strikes"?

Maria Brown: The "risk" because that is what we can measure.

Dick Ogg: Will there be a means to adjust for an increase in whale population?

Jess Morten: The baseline for most of the research that's been done by Point Blue Conservation Science uses 2014 as a baseline year for that 50% goal.

Scott Artis: What are the prospects for the program being mandatory instead of voluntary?

Kai Martin: We considered the lessons learned from the mandatory East Coast program, as Jess mentioned. It was not necessarily more effective.

George Clyde: When I voted, I was expressing support for what's included in the short term management actions written in the report -- "to explore and consider" -- we recommend that GFNMS and CBNMS should explore and consider a mandatory VSR as stated in the report.

Jeff Dorman: There was a lot of uncertainty around the science for implementing a year round VSR. It might change the way ships transit in and out of the SF Bay. We express that we want the sanctuaries to continue to monitor and research through modeling studies to understand the potential impacts on whale populations. So, I

agree - our recommendations state that if we are not achieving the goal then we recommend the sanctuary consider a mandatory VSR.

Francesca Koe: Are we clear about the recommendations, underscoring voluntary versus mandatory? I appreciated the public comment that expressed support for mandatory. I want to make sure we listen to public input.

Sarah Bates: What is the process for the sanctuary?

Maria Brown: Once the sanctuary receives the recommendations from the council, we do an internal review considering what is within our authority as well as sanctuary mission/goals. We will respond back to the council in writing if we will not move forward with these recommendations. We will present a status on moving forward either through my superintendent's reports or via a staff person giving a more detailed presentation (i.e., an agenda item). We are moving toward management plan review, starting next year, and the council will be very involved. In the management plan, we will establish the evaluation criteria; we will probably not be getting back to the council on milestones/evaluation criteria before the management plan process. The public will have a chance to further comment during the management plan review process.

GFNMSAC MOTION: To adopt the report with the edit to add “Sanctuary Goal: Reduce the risk of lethal ship strikes to endangered and threatened blue, humpback, and fin whales by 50% throughout CBNMS and GFNMS” to page 14; and forward the recommendations as detailed in the report to the Greater Farallones and Cordell Bank National Marine Sanctuaries Superintendent

Vote: 11 yes, 0 no, 0 abstain

Motion passes.

CBNMSAC MOTION: To adopt the report with the edit to add “Sanctuary Goal: Reduce the risk of lethal ship strikes to endangered and threatened blue, humpback, and fin whales by 50% throughout CBNMS and GFNMS” to page 14; and forward the recommendations as detailed in the report to the Greater Farallones and Cordell Bank National Marine Sanctuaries Superintendent

Vote: 8 yes, 0 no, 0 abstain

Motion passes.

BREAK

Presentation: Blue Carbon in Marine Protected Areas

Sara Hutto, Greater Farallones Ocean Climate Program Coordinator

[View Slides](#)

- Sara Hutto presented on the recently published Office of National Marine Sanctuaries two-part report series titled, [Blue Carbon in Marine Protected Areas](#).
- Led by GFNMS, with support from Greater Farallones Association, the reports are meant to guide MPA managers in the assessment, protection, and management of blue carbon habitats and processes.
- Sara walked through a newly released [Blue Carbon in Marine Protected Areas Storymap](#) as well.
- Sara emphasized that sanctuaries are leaders in this field, shifting from ocean as a victim in climate change to showing that it's also a solution. Presenting a strong case to protect these natural ocean habitats and processes/systems.

Kai: Are you looking into carbon credits/offsets, and using money to incentivize protection?

Sara Hutto: Yes, we are thinking about carbon markets. The challenge is in applying them to sanctuaries. The only habitats viable on the carbon market would be salt marsh, and we don't have much salt marsh habitat in our sanctuaries. SF Bay managers still have trouble confirming their financial viability, even with a bunch of saltmarsh. Not yet for us, but we should invest in learning more because it will be in the future.

Bibit: It's amazing how far you've come with this. I just want to highlight the language around blue carbon. We don't focus on methane in the carbon flux as much. The focus on species can affect the flux calculations. Some species can be sources of methane, which counters their carbon sequestration capacity. Methane is becoming a bigger topic when discussing carbon and blue carbon. I think it's important to include this from a sediment microbial ecology perspective. Sediment sequestration may not be as optimistic as it appears.

Sara: These processes are incredibly complicated. Millions of dollars are going toward understanding gas exchange. We focused on sediment accumulation, and market methodology has not caught up with this. OCNMS is currently doing a vulnerability assessment, and they are looking into methane seeps and release. It will be interesting to see what they find.

Ezra: Have you looked at seagrass die off in the same way you're looking at kelp die off?

Sara: The spatial data we used was fairly recent; I'm not aware if there are significant impacts from seagrass die off.

Cea: The story map is a great resource, and it can be used by managers outside the sanctuary in areas where there are more salt marshes.

Maria: We are also looking at blue carbon in CBNMS to quantify how much blue carbon is stored in those offshore sediments. It might be the greatest source of carbon storage in the sanctuaries.

CBNMSAC Business

Kai Martin, SAC Chair

Jordan Gorostiza, SAC Coordinator

CBNMSAC MOTION: Approve November meeting highlights

Vote: 8 yes, 0 no, 0 abstain

Motion passes.

Charter 1 Amendment Update

Charter 1 amendment has been approved by the ONMS Director and will be posted on the CBNMSAC website soon.

Member Reports

Sarah Bates (GFNMSAC Commercial Fishing/Alternate)

Commercial Dungeness crab season is in full swing after significant delays due to the presence of whales in the fishing grounds. Harvest has been steady, though not as robust as some had hoped.

Offshore wind development continues to move forward. Commercial and recreational fishing fleets have some serious concerns about the rapid pace of these offshore leases. There has been almost no consideration of loss of traditional

fishing grounds, effects of high voltage lines on marine life and ecosystems, transit right-of-ways, or mortality to birds. We are eager to hear a response from the Sanctuaries about policy regarding offshore wind development.

John Berge (GFNMSAC Maritime Activities - Commercial/Primary) and Kai Martin (CBNMSAC Maritime Activities)

A joint program developed by the Pacific Maritime Association (PMA), the Pacific Merchant Shipping Association (PMSA) and the Marine Exchange of the San Francisco Bay Region was adopted on January 10 in an effort to avoid ship congestion and reduce ship emissions. An ancillary benefit of the program should be a reduction in the risk of ship strikes of whales through further reduced speeds of vessels coming to San Francisco Bay ports, as well as those transiting the Santa Barbara Channel on their way to or from Los Angeles and Long Beach.

The program was initially adopted last November for the ports of LA and Long Beach, where nearly 100 ships were anchored awaiting berths to work cargo. Previously ships were assigned berths and shoreside International Longshore and Warehouse Union (ILWU) labor based on their arrival within 80 miles of their port of destination, resulting in ships speeding to get in the queue. The new program assigns the ship's place in the queue when it leaves its last port of call based on its estimated arrival. This will help to avoid the hurry up and wait situation we have seen over the last year.

While the driving factor in adopting this program was to reduce harmful ship emissions in the regions near ports, ships coming to SF Bay that may have to wait for berths and labor can now reduce their speeds without concern that their schedules will be further hampered by losing their place in the queue.

This program specifically impacts container and roll-on/roll-off ships, and perhaps some bulk ships that call at public ports and employ ILWU labor, so tankers and bulkers calling at private terminals will not fall under the purview of this program. However, those vessels generally travel at lower speeds and do not pose as great a risk to whales.

This has resulted in slower steaming across the Pacific further reducing emissions and congestion even at 150 miles. Christopher Chavez, Deputy Policy Director for the Coalition for Clean Air, and a Long Beach resident, said the announcement is a positive step. "I think the new policy is going to be an important step to improve fuel efficiency, reduce pollution and actually to protect whales," he said, pointing to a required slower speed as vessels head toward California.

Frank Capurro (CBNMSAC Community-at-Large Sonoma County)

My Member report for the month of January includes informational boards for boaters and the general public as well. I have been a part of a project to promote awareness to our Marina berth holders, who not only are recreational boaters, but also commercial fishermen as well. The colorful picture boards cover the Greater Farallones and Cordell Bank National Marine Sanctuaries. I, along with my co-workers, have recently installed these gems in two very high-profile areas. Two of the boards entitled Conserving California's Coastal Treasures focus on Pt. Reyes Estero, Drakes Estero, while others educate the public on what Marine Sanctuaries actually do for us all. The third board educates the fishing public how to fish with Marine Safety as a high priority. From disposing of used fishing line, reporting lost fishing gear, reporting injured animals, to boating clean, meaning sewage and bilge pump outs.

I have included pictures of the boards which now hang in our Marina Small Craft Harbor.....Enjoy!





Morgan Patton (CBNMSAC Conservation)

Duxbury Reef Docent Training

EAC, in partnership with Marin County Parks and Open Space, launched our first volunteer docent training on Duxbury Reef in January. We trained 11 locals from Bolinas and Inverness as docents and featured guest instructors: Kathy Ann Miller, PhD, Curator of Algae, UC Berkeley; Joe Mueller, Professor of Biology, College of Marin; Rebecca Johnson, PhD, California Academy of Science. The Duxbury Docents will be scheduled this month at low tides this month. We will have a second training in late July (tide dependent). Learn more:

<https://www.eacmarin.org/duxbury-docents>

Point Reyes Birding and Nature Festival

EAC is planning our annual Birding and Nature Festival scheduled for April 21 - April 24, 2022. This year's festival will feature outdoor field trips in Marin and Sonoma counties. We will also have a selection of online events (keynotes and webinars). More information and the schedule will be posted at

<https://www.pointreyesbirdingfestival.org/>

Marin County Unincorporated County Housing and Safety Element

The County of Marin is updating their Housing Element as required by the State of California. The state is requiring that the County add 3,569 new houses into the unincorporated areas of the County. The draft housing maps and information are available online. The Housing proposals are spread throughout Marin County coastal villages that are adjacent to the creeks, streams, and GF Sanctuary. Resources to learn more:

- [Housing Element Update](#): CDA website with links to meetings and interactive maps. [Four Scenarios](#): Options to look at the proposed locations
- [Draft Sites Inventory Map](#): List of draft candidate housing sites to be considered.

Jeff Dorman (CBNMSAC Research)

COVID continues to impact scientific data collection on the US West Coast. The Winter CalCOFI research cruise was completely canceled due to surging COVID rates in December 2021 and January 2022. This cancellation in addition to the many scaled back or canceled research cruises in 2020 and 2021 continue to leave "holes" in many long-term data collection efforts. The spring and summer are traditionally very busy times for data collection on the US West Coast, and particularly in GFNMS and CBNMS. We are hoping that the research community is able to manage the COVID situation during these times and get out there and collect valuable environmental and ecosystem data.

WRAP UP & ADJOURN: 1:27 p.m.

Meeting highlights prepared by Jordan Gorostiza, Advisory Council Coordinator.