

MONTEREY BAY NATIONAL MARINE SANCTUARY ADVISORY COUNCIL

**Final Meeting Minutes
August 21, 2020
Virtual Meeting**

VOTING MEMBERS

Agriculture: Sarah Lopez
AMBAG: Steve McShane
At-Large: Dan Haifley
At-Large: Gary Hoffmann
At-Large: PJ Webb
Business & Industry: Al Budris
CA Coastal Commission: absent
CA Dept. of Fish & Wildlife: Paul Reilly
CA EPA: Karen Mogus
CA Resources Agency: Tova Handelman

CA State Parks: absent
Commercial Fishing: Kathy Fosmark
Conservation: Katherine O’Dea
Diving: Brian Nelson
Education: Felicia Van Stolk
Harbors: John Haynes
Recreation: Gary Pezzi
Recreational Fishing: Jose Montes
Research: John Hunt
Tourism: Mike Bekker

NON-VOTING MEMBERS

Channel Islands NMS: absent
College: Jacob Winnikoff
Cordell Bank NMS: absent
Elkhorn Slough NERR: Dan Brumbaugh
Greater Farallones NMS: absent
Monterey Bay NMS: Paul Michel
National Marine Fisheries Service: Steve Lindley
U.S. Coast Guard: absent

Alternates Present in the audience:

Gwen Kellas – At-Large southern region
Tom Rowley – Business & Industry
Rachel Kippen – Conservation
Keith Rootsart – Diving
Bart Selby – Recreation
Steven Haddock – Research
Julia Dyer – CA EPA
Chelsea Protasio – CA Department of Fish and Wildlife
Marian Olin – Harbors
Dawn Hayes – Monterey Bay NMS

I. CALL TO ORDER, ROLL CALL, AND MEETING MINUTES

Chair Brian Nelson called the meeting to order at 9:00 AM. Roll call was taken.

Approval of June Meeting Minutes:

Dan Haifley introduced a motion to approve the June meeting minutes. Seconded by Gary Pezzi.

MOTION: Passed

(Vote: 15 in favor, 1 opposed, 0 abstentions)

Approval of July Meeting Minutes:

Kathy Fosmark provided edits to her comments made during the July meeting.

Dan Haifley clarified when he mentioned historical sites, he referenced both shipwrecks and native sites.

Comment informed the AC he submitted comments to Nichole Rodriguez after the meeting.

Katherine O’Dea introduced a motion to approve the July meeting minutes. Seconded by Mike Bekker.

MOTION: Passed

(Vote: 14 in favor, 0 opposed, 1 abstention)

Felicia Van Stolk was sworn in as the Education alternate. Felicia Van Stalk is Executive Director at the Santa Cruz Museum of Natural History. She is an informal educator, well connected with both UC Santa Cruz and local K-12 educational institutions.

II. STANDING ITEM: MBNMS Superintendent Report

Acknowledged the several severe fires along the central coast that has affected so many people including staff members of the Sanctuary.

Updated on the Management Plan: Dawn gave a presentation to AMBAG on August 12 and there will be a similar meeting for GFNMS on Monday August 24.

Staff continue to telework, and the Sanctuary is working on plans and guidelines for the return of on-site fieldwork and office work when it is safe to begin regular activities again.

Paul Michel announced he will be moving to the ONMS West Coast Regional Office at the beginning of the new fiscal year (October 1) and will be ending his position as Superintendent of MBNMS.

III. PUBLIC COMMENT FOR ITEMS NOT ON THE AGENDA

Steve Scheiblaue: My name is Steve Scheiblaue for the record.

My comment is on the policy of the SAC to not publish, for public information and review, correspondence which you will be considering approving at a scheduled SAC meeting.

I know that as a federally authorized council, you are not subject to California’s open meeting law—the Brown Act. However, I do recall that there has been past discussion about conforming to the spirit of the Brown Act in transparency, even if it is not a legal requirement that you do so. A case in point is today’s agenda action item on adopting a letter—and a position—on whether or not a large industrial development—a wind farm—belongs inside this NMS. The letter will say yes, no, or maybe, the public doesn’t know where you will land, because the letter you will consider is not to be found on the sanctuary’s website, or the link to today’s agenda.

In California, we are used to and expect that all information pertaining to decisions by public agencies is properly noticed and available. This is why, for example, AMBAG’s publically noticed August 12 meeting, which contained an agenda item pertaining to comments on the

sanctuary's draft management plan, was provided both to the board and the public with the draft AMBAG letter, in advance of the meeting. This is the way that every California agency that I know of works.

Please consider that a policy which does not provide draft letters, or reports, or other materials which relate to action items, undermines the transparency of SAC and sanctuary management. I urge the SAC to take this matter up at a future meeting.

Speaking to an even larger point of transparency and public notice, I admit that my local news information is limited to reading the SC Sentinel and listening to NPR's KAZU. This said, I did not see anything in those media about the July 16 special meeting on OSW, nor today's agenda item regarding adopting a letter and position on this topic. I would think that many public members would have an opinion on having a 200-500 turbine wind farm inside the sanctuary and within sight. This item is not even on the sanctuary's website home page under "News".

Thank you for hearing my concern.

IV. ACTION ITEM: Comment letter regarding offshore wind energy project

Brian Nelson introduced the letter. Reminded the AC that letters of this nature do not get published to the website before the AC votes on/approves them. There is a limited amount of time to submit this letter. This is a comment letter for the national registry. If this item is completed during this meeting, everyone's comments will be included in the letter that is submitted as public comment. If not completed today, other comments can be submitted to the national registry individually by September 30.

Brian reminded the AC this is not legislation but rather a comment letter from the AC. The entire sub-committee that drafted the letter is opposed to the BOEM proposed area for wind energy in the sanctuary. The sub-committee supports wind energy, but not within the sanctuary.

There was discussion and edits made to the letter.

Public comment:

Steve Scheiblauber: My name is Steve Scheiblauber, for the record.

Thank you Paul for your service to this sanctuary.

I fully support a SAC letter to the CA Energy Commission that says unequivocally, No Thank you to an offshore wind farm. With one exception, I think the draft letter before you does that.

The exception is important. The letter ends with this statement:

If further study reveals that a wind farm site should be located adjacent to, or include a portion of MBNMS, we request further consultation and opportunity to comment.

This feels like it leaves the door open to reconsider such a project. Is this the intention of the SAC, to leave the door open to a large industrial project, with 800 foot high turbines and a massive anchoring and cable system? The OSW industry wants 500 turbines. If the majority of the SAC wants to leave the door open, then you should leave this sentence in the letter. If not, remove it.

Consider: What if the 1992 designation document contained similar language regarding future oil and gas development? Telling the Dept of Interior, no thanks, but you can ask us again if you really need to?

The sentence also hints at "the state is making us do this".

Remember, neither the state nor BOEM can legally force such a development upon a NMS.

That's why we have a NMS. Perhaps Paul Michel can confirm that or correct me.

The use of the word “request” troubles me, as we have every right to comment on these matters; we don’t have to play the supplicant and ask for permission.

I am ok with the single sentence replacement suggested and amended by PJ Webb.

Thank you

Bob Behl: Bothers me that in the presentation about wind energy they were very careful to explain the criteria for choosing a site for wind energy development, but the discussion area popped up in their presentation which violated their criteria. We should understand why they included the discussion area in the first place. Secondly, we should ask what the positives might be to this project although agrees with what was proposed in the letter.

Advisory Council Member Discussion:

Paul Michel: Absolutely right about BOEM and the state lacking power to lease sanctuary waters. Could imagine a scenario where they designate area without leasing sanctuary area and leave it to NOAA to deal with the consequences.

There was further editing of the letter.

Gary Pezzi introduced a motion to approve the comment letter. Seconded by Steve McShane.

MOTION: Passed

(Vote: 14 in favor, 0 opposed, 3 abstentions)

Brian thanked all of those involved and urged everyone to submit a separate comment to the national registry.

The letter can be viewed here: <https://montereybay.noaa.gov/sac/sacact.html>

V. INFORMATION ITEM: Management Plan Review

1. Resource Protection Action Plan

Question: Is sanctuary still producing condition reports and when will next one be available?

Staff response: Research usually handles that: Official Conditions Report not done officially until MPR (every 10 years). Research Team will be collecting and publishing data & produce unofficial condition reports more regularly.

Comment: Seeking clarification on activity 1.3 and 1.2. Participate with CINMS and GFNMS regarding whale strikes. Please explain and include changing routes, vessel speeds and other mechanisms.

Staff response: Yes, it involves potential management measure that protects against potential whale strikes, including slowing vessel speed. CINMS is looking at ways to shift traffic routes. We could add more detail there.

Comment: Delineating voluntary vs mandatory measures. Understand the measures that are voluntary, not sure these are being monitored.

Staff response: It is all voluntary right now. There are some incentives. New modeling will calculate voluntary vs working with IMO to see what more can be done. Not looking at regulatory at this point, but the data is comprehensive, so looking at management measures.

Question: Activity 1.2 - why doesn't this also involve a risk assessment? Oil tankers go outside of sanctuary but their proximity to sanctuary in event of accident should be included in Activity 1.2.

Staff response: Recommended vessels be 50 miles from shore, we are tracking compliance with oil tankers and container ships. We have reports coming out that look at that compliance. We have some issues coming up that we'll be talking to Coast Guard about.

Question: Is someone taking a look at smaller recreation boats striking otters, dolphins, or seals due to excessive speed (30+ mph)? We see it a lot in northern part of sanctuary?

Staff response: It is covered under ship strike. Are you looking for more specificity?

Question: Native species of urchins overpopulating our reefs? Seems to be covered in Item 11. Is that the strategy that addresses kelp restoration, and non-native species (invasive Sargassum species).

Staff response: Sargassum is addressed in Introduced Species Action Plan. Kelp-urchin issue is very interesting in that it bridges resource protection and research action plans. It may not be culled out specifically in RP Action Plan. It is covered with permitting and environment review (RP-1). Generally it is covered but not called out specifically.

Question: Looking at Activity 2.2 analyze data to understand how wildlife operators are using the sanctity from spatial perspective. Could you clarify?

Staff response: HQ has a special economic department. We are trying to better understand different user groups. We looked at wildlife viewing operators to understand their take on wildlife viewing. Next step in Activity 2.2 is to interview their customers — who is utilizing the sanctuary for whale watching, wildlife viewing.

Comment: I heard a story about European initiatives looking at sound in ocean. We had a working group about this. Apparently, there is an EU classification system. I would hope we would take a look at adopting that.

Comment: RP-1, regarding Sanctuary Ecologically Significant Areas, I hope I do not see the sanctuary making efforts to have these become state or federal marine protected areas. That was not the deal made with fishermen when they were proposed.

2. Education & Outreach Action Plan

Comment: About support long-term goal with Sanctuary visitor centers. There should be something specific regarding long-term goals for Sanctuary visitor centers. Add "Support long-term goal of sanctuary Visitor Center on Monterey Peninsula."

Comment: Thank you so much to Amity for talking to me previously. I was curious if folks or someone would consider changing language from "citizen science" to "community science" so it does not come with connection to needing citizenship in this country. Just wanted to raise that.

3. Climate Change Action Plan

Question: Don't see anything about the Blue Economy and Climate Change. Is there any overlap?

Staff response: There is discussion on Blue Economy to be more specifically in Education & Outreach Action Plan. Really about forming alliances & partnerships, with more messaging about that. Specific to climate change, there is always issues we are trying to address with businesses to get information out more broadly.

Question: Possible impact on climatology. Changes we see today, we could be facing major climate change by 2030. It could be in the scope of this management plan. Are any of these addressing ocean climate impacts?

Staff response: Yes, we are working collaboratively with all the cities. Yes, it links with their activity. This plan is a framework and we need to delve down into the details. Your suggestion is well taken.

Question: Activity 2.2 Greenhouse gas emissions. Refers to reducing sanctuary's carbon footprint. Was this to establish a zero carbon goal by a specific date? If so shouldn't that be included?

Staff response: Good question. Should be a long-term goal, activities to determine what carbon emissions our current activities are producing, then finding ways to reduce our footprint will come together, hopefully to get us forward to zero, but not something we can put a pin on right now. It is definitely our goal and something we're seeking.

Comment: Reason I brought it up is that if you set a benchmark, then you will have a target to reduce our carbon footprint. It seems to be what folks are doing, is setting targets & timeframes.

Question: My question is about CC-3. This is interesting because it also seems to be linked to education. For all activities, there seems to be a focus or ramification or impacts on climate change but not on what folks can do to stop climate change. It seems to be more about "these are the terrible things that are happening" but not on what people can do to stop impacts.

Staff response: This is about personal activities and solutions. Having a climate education plan, curriculum for K-12, visitor center exhibits, and other ways. It is a huge need, people understanding what climate change means.

Staff response: We do public outreach as well as K-12 education. We are doing virtual presentations now, and continue to education public members as well on climate change situations and solutions. We do focus a lot on K-12 education; public is part of our programs as well.

Comment: The activities as described seem to focus on impacts, not on solutions. Seems to be on how bad things are, not on solutions.

4. Research & Monitoring Action Plan

Question: RM-3 SCUBA diving, etc. re urchin overgrazing?

Staff response: Steve Lonhart is Dive Master and unit supervisor for our unit, also a trainer for PISCO divers. Steve & Chad dive with PISCO. They also organize dive monitoring for Greater Farallones and Olympic Coast national marine sanctuaries. Steve is working with California Department of Fish & Wildlife on modifying collection rules for sea urchins and looking at impacts (damages of collecting). Finally, Steve & Chad are working with the UC universities. MBNMS is a recognized expert on kelp ecology and we will keep doing that.

Question: Why is offshore wind energy not in RP category?

Staff response: It is in Marine Spatial Planning Action Plan, since it involves spatial planning. We separated out the issue rather than programmatic plans. Issues will fall under programmatic plans, but because it was a topic pulled out to zoning of some kind, they were put into spatial basis planning.

Staff response: Understand that we need a lot of science for making decisions. When BOEM was looking for data, same as for Chumash Heritage (NMS), we came up with around 60 datasets that they were not aware of. In fact, we do provide information for other Action plans.

Comment: In the R&M Plan, I did not notice where the water quality monitoring is addressed.

Staff response: It is located under Water Quality Action Plan.

5. Wildlife Disturbance Action Plan

Question: 1.1 mitigate wildlife disturbance: Have all whale watching boats distributed protocols to all members of the public?

Staff response: We are working on a draft brochure, We are hoping to get feedback on that soon. Then we will implement the plan to distribute it to whale watch operators and private boaters, our target audiences. Our operators are aware of best practices and they do use them on their own. We will try to align what they are already doing with some adjustments that are needed.

Question: There is new information about how krill is impacted by boat activity, and as a result it can affect feeding. If something is not uniformly understood, how can it be enforced?

Staff response I am familiar with the publication you refer to. The Best Practices Guide will be addressing avoiding whales when foraging. You also know that can happen right next to a boat, when krill are moving. Compliance and enforcement will be included as we talked about in the working group. Definitely compliance can be measured and evaluated; definitely that is a conversation and that it occurs.

Staff response: WD 1.8 also addresses standard protocols for established distances. When they come out, there will be assessment of voluntary compliance with the industry, then assessment of how effective voluntary compliance has been. If not, then we will have to look at regulatory compliance or controls. Addressed in Activity 1.8.

Staff response: That is all private boaters, not just whale watching industry. They will be involved in assisting in getting the word out.

Question: Activity 2.2 - Addressing actual regulation in Activity 1.8, should there be a similar process in Activity 1.8 like Activity 2.2? Developing criteria and doing science-based assessment to determine if voluntary participation is working or not working? Should it receive the same level of scrutiny?

Staff response: 2.2 and 2.3 Aerial overflights zones. These zones, when designed in 1992, overlay high concentrations of marine mammal and seabird areas. That was not done because every airplane flying into the airport would be in violation. We also have regulations that address wildlife disturbance. There are also municipal and state parks regulations, and FAA regulations within 5 miles of an airport (regarding drones). There are many regulations already in play. There was not a prioritization to increase regulations about drones more than what we already have in place right now.

Comment: The whale watching boats are taking their drones out there, media companies too. Not aware of any guidelines on drone use (on the water). If you look at some of the websites of some of the whale watch operators, there are some egregious concerns. So were focusing on whale watch boats, not on their activities.

Staff response: We are looking at crafts as well as craft activities. If a craft is buzzing a whale, we wouldn't turn a blind eye to that. It is included in our assessment.

Question: We have adequate things on the books to make people not flush birds but I still see it at Pillar Point every day; fishermen flushing pelicans. My questions: Shrouding propellers should be looked at. Are we required to look at not only ship strikes but also propeller strikes?

Staff response: Yes, under MMPA, ship strikes and propeller strikes. Regulations require notifications to NMFS.

Comment: WD-1 - Wildlife disturbance. As a diver representative, we are concerned about boats coming to see seals there. Now that COVID is having an effect and there are fewer divers there,

the seals seem to be moving further out. We want to be sure the Action Plan includes the seals. I see the drones being an issue for the whales. Drones are being considered the boogey man. But we need drones to help determine impacts to kelp forest. Please keep that in mind when you are considering drone disturbance.

Comment: Office of Protected Resources studies the whales, I want you to know there is something in place. But at the same time, the largest portion under Endangered Species Act, comes from blades on wind energy devices. I know they have not put them in the sanctuary, that is going to be a huge issue to deal with. I thought I would let you know to hold that in place. WD-4 the use of seal bombs, remember they are a legal deterrent to prevent entanglement within fishing lines. There needs to be a conversation with the fishermen who use them before decisions are made. There is speculation that they are harming harbor porpoises, however according to NOAA's Office of Protected Species, the Monterey Bay subpopulation has been steadily growing.

Comment: On WD-1 is there any reason in the interest of clarity that specifically drone activity and PWC activity were not included. Under WD-1, it should include specifically drone activity and PWV activity. In the interest of clarity these activities should be included.

Comment: The largest proportion of dead wildlife comes from the blades on a wind energy device. These numbers come from up North. Wanted to inform the Sanctuary of this issue.

Comment: Guidelines for drones should be incorporated into Strategy WD-1 as well as incorporating the latest resource on krill disturbance and whale feeding behaviors by whale watch operators and potentially drones should be address in WD-1.

Comment: Language should be added concerning propeller shrouds.

6. Emerging Issues Action Plan

Comment: We have talked about this before, the impacts of the Chumash Heritage NMS vs expansion of Channel Islands NMS. There was a report put out by MBNMS Superintendent where it is identified as an emerging issue. It seems to me that is a big issue on our southern border that needs to be identified specifically.

Staff response: We tried to minimize identifying emerging issues in the plan. Chumash Heritage NMS is on the radar but not addressed specifically in this Action Plan.

Question: In Activity 1.2 should there be a group identified that is designated to prioritize emerging issues? How will emerging issues be prioritized, How will they be ranked and who will be doing the ranking?

Staff response: In the strategy, it states this action is based on addressing top priority issues as addressed by the public and SAC. Staff also will be involved with identifying issues. Once we start the process of identification that is what we will be bringing to the SAC. The whole process is something we do with the advisory council. Things that all in in EI-2 is the process that we engage with the AC. The description of the process states that it is a public process. If you want to make a comment act better identifies the AC and the public, we can clarify that too.

Comment: I understand that this section of the plan, (the new plan like the old plan), has a lot of fleshing out to do. I think the plan should be addressed at least annually.

Question: Do we only add to the list at the SAC meeting? How do you get an item on the list?

Staff response: That is what we need to develop. How to get it on the agenda.

7. Marine Debris Action Plan

Comment: It seems to me we should do something about plastic and recyclables because plastic contributes to ocean pollution. I think it is critical to develop recycling centers because we do not have effective land recycling. We need to lobby with the legislature some land recycling facilities that are not dependent on overseas recycling industries. It is not on the radar screen and it should be. Eventually plastics wind up in the Great Pacific Garbage Patch. I hope the sanctuary can get their attention to do something about this major problem. It is marine debris, I don't see whether they're looking at this or not -- to fix this problem on a statewide basis.

Comment: We should encourage foundation funding for the marine debris program.

Comment: The strategy should include supporting innovations in technology for cleaning up marine debris. It is all about prevention, which is great, but I think the sanctuaries should be collaborating and supporting new technologies.

Comment: State AB54 and SB180 are about plastic recycling. Interested parties should pursue these individually.

8. Davidson Seamount Action Plan

Comment: General comment; the fact that we have a strong science capability is one of the most important things we do.

Comment: Yesterday at the state lands commission, they are considering policies about seabed mining. The Seamount it came up that there could be precious minerals that some could consider going after. Keep an eye out for anything that involves mining for rare minerals.

Comment: echo comments about deep-sea mining. In the last few days, in the news, the Department's Bureau of Ocean Energy Management (BOEM) announced explanation for federal leasing process for marine mining operations, very much an emerging issue of great concern.

9. Water Quality Protection Program Action Plan

Comment: There is language in the draft that refers to 2014 report that lists central coast water bodies for pollutants. Believe there is a more recent one (2017), check with water quality control board to bring them to current. Some other links that were not active and need to be reviewed for currency. Some people asked about water quality monitoring and were referred to Water Quality Protection Program (WQPP) Action Plan, but page 99 refers readers to Research & Monitoring Action Plan. Looks like a circular reference where one refers to the other but neither addresses the issue. Agricultural plastics is only mentioned in monitoring. I think it would be good to bring plastics into the rest of the action plan.

Question: A couple of beaches in the sanctuary made the top-10 worst beaches. What is the sanctuary doing to address that? Great opportunity for education. Can someone address that?

Staff response: You are referring to the Heal the Bay report. Cowell's Beach is not on the list this time, something to celebrate. The counties and Surfrider do weekly or monthly monitoring of outfalls at beaches. Both county and Surfrider were on the water quality protection committee, Even without water quality monitoring programs, we do measure fecal indicator. They do use that when prioritizing infrastructure repairs.

Comment: Anything the sanctuary can do to improve water quality improves its perception.

Staff response: We are using more tests to determine human-specific bacteria as compared to wildlife-caused bacteria. To Sarah, yes, we are working with agricultural plastics, what we are actually seeing, both in regard to microplastic and out in the ocean.

Staff response: Regarding circular aspect — monitoring falls under WQPP Action Plan, but we point to Research Action Plan, which is more ocean-specific. Watershed monitoring falls under WQPP Action Plan.

Staff response: Activity 2.4 specifically addresses quantity and fate of plastics in Agriculture. It is specifically called out in the action plan. Aquastaff white paper goes so much deeper than the level as indicated by the WQPP action plan

Staff response: This action plan was actually written 2015-16, it has just taken this long for the process to come to this place. We will look at those links. These are definitely our priorities, although we keep things broad.

Question: If the document is 4 years old, it precedes CEDEN (California Environmental Data Exchange Network)? How does the document need to be updated?

Staff response: We continue to enter data in the CEDEN format so that it can be uploaded when and if it can go that way. Our goal is to make sure this data is available to everyone.

Question: State Board issuing microplastic MCL's, that and other emerging contaminants of concern, how does this address microplastics as now being regulated by the state board and other emerging contaminants of concern?

Staff response: Municipal stormwater permits now require 100% of any trash or debris greater than 5 mm; that is not really microplastics. They either have to collect, capture it or they have to have a program that meets that goal. It could be outreach, as long as they can prove that it meets or exceeds the municipal code. We are not monitoring that component for the cities. Our focus is really on the Agricultural sector and what is going on over there. It is a little different than what you're talking about.

Comment: WQ #2: This indicated the critical need of efficient and effective land recycling centers & facilities. Agriculture is on top of it. We need some leadership at the state level and get recycling centers at the land-based level. Can't overemphasize the land-sea connection.

10. Coastal Erosion Sediment Management Action Plan

Comment: Keeping our harbors reduces cost of dredging directly effects fishing corrected. Please make sure the definition in the regulation is broad enough to place clean sand on the beach.

Comment This is something that has been important to the harbors for a long time. All harbors will submit their own comments but we got together. Harbor beneficial use the harbors appreciate recognition accomplished by which rebuild beaches, increase for many years waste product to value sediment harbors believe beneficial reuse can be a beneficial tool sea level rise and storm activity. Request clarification that future permitting process will not deviate from current permitting. Considerable time and effort addressing this issue. Excited to see something move forward.

Comment: Second comment from harbors to staff to make this a reality and also thank harbors for patience and understanding environmental importance.

Comment: We have done a thorough analysis at staff and policy maker level. Applaud efforts of sanctuary team to build a stronger relationship with AMBAG. Maybe a stronger tie to elected members of the region, greater voice through elected government.

11. Introduced Species Action Plan

Question: Any efforts to eradicate invasive bryozoan?

Staff response: Most likely this species has its origins in Asia. Published a paper with Smithsonian about spread. We documented where it is, and how it is spreading. It can survive in foliose and crustal forms and can fragment easily. Most efforts are primarily to enclose the area and kill it with freshwater or other substance. So far, these measures have not been contemplated or employed in sanctuary. Currently no efforts to remove it.

Question: Issue-based action plan needs more examples of what you are talking about; should there be clear example of what you have in mind?

Staff response: Urchins are not addressed here (native). The Sargassum Action Plan is consistent internationally with any invasive species. This is scientific but still general in order to respond to any invasive species. Each time a new species shows up, we will use the framework to address the issue, then we'll get specific to each species. *Sargassum horneri* — very destructive in So. Cal. At this stage in Monterey Bay, we only know if the initial sitting at the Monterey breakwater. That area has been surveyed, but limitations due to pandemic. In the meantime, we have not coordinated with any other efforts at this stage.

Comment: Activity 2.1-Seems to me that it would be prudent to create a comprehensive surveillance program to catch things early as opposed to later when things are already embedded in the ocean environment. My suggestion is to add this to Activity 2.1 or create a new Activity that addresses this issue.

12. Marine Spatial Planning Action Plan

Comment: MSP-8 artificial reefs. Some of the statements are incorrect. It is a high priority. Strategy 1 - already has strategy status to develop artificial reef? Implementation of federal funding — this is already funded. We've sunk 3 vessels in state waters — entirely funded by diving community.

Staff response: This is site-specific, Monterey Bay does not have a plan at this time. We will need to spend staff time to develop a plan for our site, which will require an EIS.

Comment: Why is it so low if it was so high for Advisory Council?

Staff response: I don't know. State has penultimate authority to decide implementation of artificial reef. We will need to come up with funding, research, and staff to develop an implementation plan. They cannot authorize anything right now.

Comment: They said they were waiting on the sanctuary for the green light. How to clean and place the ships is in the plan. This was very high in terms of support. Why did it end up so low on priority list? I think it is being pushed down.

Comment: Artificial reefs had a high level of interest by SAC and community and concerned with how low topic is rated in MPR.

Comment: Activity 9 about the golf balls, specifically 9.3 description is education and remediation. Prevention strategy should be included as well as overall on 9.1-9.3 as well as annual reporting of the findings of the efforts being done under 9.1 and 9.2. Section 4.2 MPWC's and zoning. Continuing and completing a study. Outreach strategy to come up with alterations to zoning. Do we have to wait until the next management plan?

Staff response: Suggested modifications to existing zones. If that is approved, we'll have to get the word out about the new boundaries. Then, further study to determine how these zones are being used or not used.

Comment: regarding offshore wind energy, topic should be in Resource Protection Plan. I would like to see this discussion focus on providing comments about the potential effects of wind farms on the sanctuary if a development should be proposed next to the sanctuary's boundary. I would like to see this section be clear that they will not be allowed inside the sanctuary.

13. Maritime Heritage Action Plan

Question: Any historic shipwrecks discovered in MBNMS since the last management plan?

Staff response: Since last management plan, major shipwreck was USS *Independence* found with scanning equipment, and explored with an ROV dive. Located Umpqua an old gravel barge that was sunk in Monterey Canyon in 1980s. The Art Reidell is historic, and perhaps should be in National Register of Historic Places.

Comment: Wants to thank Erica Burton, Robert Schwemmer, and the Maritime Heritage team.

Thinks that maritime heritage is a great way to get people interested in marine resources and what marine sanctuaries stand for.

14. Operations & Administration Action Plan

Comment: Always a concern for the budget. Management Plan costs. We have added more area (Davidson), but have not increased the budget. We would appreciate more funding from NOAA.

Comment: Historically consistent issue and has gotten worse. As climate change becomes a greater issue, hope that people will work towards increasing the budget for sanctuaries.

Comment: Administrative components are always important but underrated. Over the years, taken on more but same amount of funding, really appreciate if NOAA could send more money to the Sanctuaries.

Break for Public Comments at 12:30:

No public comments.

MBNMS Proposed Regulations:

Updated Regulations:

Adding definition of dredged material

Modify MPWC zones

Exempted DOD Activities regarding Davidson Seamount

Comment: went into great detail accurately reflects, I know I made my comments in regard to these 4 modifications to the rules.

Comment: spend a considerable amount on each of these, especially #1 Mavericks surf break and awkwardness of this mess, encourage everyone to send in their own comments, please, please, please.

Dan Haifley and Brian Nelson express support for the proposed updated regulations.

Motion to adjourn seconded by Garry Pezzi.

Approved unanimously.

Attached Documents:

Appendix 1. MBNMS Draft Management Plan comments from the Research Activity Panel

**Monterey Bay National Marine Sanctuary
Research Activity Panel
Review of the Monterey Bay National Marine Sanctuary Draft Management Plan
June 2020 Draft**

Submitted to the Sanctuary Advisory Council
August 21, 2020

Research Activity Panel Review Process

In preparation for this review, the Research Activity Panel (RAP) Chair and Vice-Chair communicated frequently with MBNMS Research Program staff and RAP members to develop a process for gathering RAP comments on the Monterey Bay National Marine Sanctuary Draft Management Plan (Plan). For each Action Plan a list was made of suggested RAP reviewers, and RAP members were provided suggested criteria for the review. These criteria included scientific accuracy, justification for conclusions, consideration of research community needs and perspectives, perspectives of other stakeholders, overall feasibility, and clarity of the text, figures, and tables.

The Plan was released for public review on July 6, 2020. The following day, RAP members received instructions for accessing the Plan, along with a link to a shared Google Doc where members could add comments and interact with other RAP reviewers. Comments were submitted over a six-week period via the Google Doc and by direct email to the RAP Chair, who compiled the comments into this submission to the Sanctuary Advisory Council.

In general, RAP reviewers commented that the Plan was a well-conceived and well-written document that covered the important topics and provided a reasonable approach to proactively addressing the wide range of issues inherent in managing, understanding, and sharing information about this large and complex marine ecosystem.

RAP Comments on Action Plans

Specific comments are arranged below by Action Plan. With the exception of minor grammatical and formatting changes, the comments are presented as received from RAP members.

Climate Change Action Plan

Strategy CC-1: My comment largely relates to the implementation table (1-2). How is climate change not deemed a higher priority relative to the rest of this plan and everything else? Given the scope and pace of climate change and how this is already impacting MBNMS I would expect this first one to be at or near the top of the priorities list.

Strategy CC-1: The Abeles (2011) reference is a decade old and it references a prior decade. Therefore, it is perhaps limited in its relevance in 2020 without something more current to supplement.

Strategy CC-1: I like the emphasis on looking to natural adaptation and risk reduction measures. However, I also anticipate that to protect coastal communities and infrastructure from the effects

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of climate change, there will be questions about the feasibility of engineering projects. I'm not sure what role the sanctuary plays in these types of proposals/projects, but I was surprised not to see any mention of this in this section of the management plan (I later found it in the Coastal Erosion section – of course, these two topics have a lot of overlap!). If the sanctuary is to serve as an advocate for natural mediation efforts, I think it will be important to have a planned method for comparison with engineering “solutions” – in terms of financial cost/benefit, spin-up time, and longevity – and also a plan for how to decide on a course of action. Is the sanctuary already working with Mike Beck and the Coastal Resiliency program to help with the cost/benefit analysis?

Activity 1.1, p. 57. Second sentence is confusing -- how will GFNMS modeling be used by MBNMS?

Activity 1.3, p. 58. Here or somewhere in this chapter, I would recommend mentioning two management strategies relevant to estuaries, 1) exploring possibilities for landward migration of coastal habitats in the face of sea level rise, and 2) reducing nutrient-loading because estuarine acidification related to hypoxia interacts with climate-driven acidification.

Activity 4.1 suggests placing sediment in eroded areas of the estuary. Please also include mention of placing sediment in areas where former salt marshes have subsided, to restore elevation that was lost due to diking or groundwater overdraft. This use of sediment to restore salt marshes has been identified as a priority by Elkhorn Slough's Tidal Wetland Program, which MBNMS is a part of.

Activity 4.2: there is currently work planned for managed retreat of an old levee in the Moss Landing Wildlife Area, which will result in slight expansion of MBNMS boundaries (since the area of main channel below MHW will expand). This is something MBNMS should be a part of (planning and monitoring discussions, etc.), as it is a potential model for future managed retreat endeavors.

Strategy CC-5. The Lott reference is not current. However, I appreciate this is not intended to be a well referenced document per se. The sentence “However, research is critical, as this phenomenon is likely to decrease the availability of chemical building blocks for marine organisms that use structural components made out of calcium carbonate (e.g., shells, spines, bones).” is perhaps misleading in that the bulk availability of calcium carbonate in the ocean is not at issue per se, but rather its solubility and potential for water to become corrosive with respect to dissolving calcium carbonate and damaging tissues containing this mineral such as shells and corals. This then informs the following sentence which seems overly categorical. Perhaps more accurate to say something more like ‘Ocean acidification can be damaging to ocean life. For example, acidification can affect the tissues animals containing this mineral such as shells, spines and bones. This can cause growth, predation and mortality issues, particularly at early life stages, for sea urchins, mussels, oysters, abalone, crabs and corals.’ There are several active pH modeling efforts, including those related to CeNCOOS, NOAA SWFSC, OPC and others operating in the region. I expect that it would be a safe activity over a time horizon of ~3 years to suggest a prospective spatial and temporal assessment of pH variation in the MBNMS currently, and in relation to climate change.

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Page. 60: Please include Elkhorn Slough National Estuarine Research Reserve as a partner, because we are investing heavily in consideration of climate adaptation strategies in Elkhorn Slough, including MBNMS waters there.

Page 61 & 71: Some of the strategies for both the Climate Change and Coastal Erosion action plans are not included in their Performance Plan tables and it wasn't clear to me why. Sorry if I missed something.

Coastal Erosion and Sediment Management Action Plan

Page 63, Paragraph 3:

Original text:

“restore and maintain coastal beaches and other critical areas with sediment deficit; reduce the proliferation of protective shoreline structures (which exacerbate erosion); sustain recreation and tourism; enhance public safety and access; and restore coastal sandy habitats.”

Suggested modifications:

restore and maintain coastal beaches and other critical areas with sediment deficit; reduce the proliferation of protective shoreline structures (which **can** exacerbate erosion); sustain recreation and tourism; enhance public safety and access; and restore coastal sandy habitats.

Also here: In terms of the “proliferation of protective shoreline structures,” consider that sea walls in places such as Pacific Grove might stabilize the coast because they've been there for so long.

Page. 66 paragraph 2, mid-paragraph: What evidence is there for the statement: “Conversely, if left to breach naturally, lagoons can remain closed so long that water quality suffers...”?

Page 66 paragraph 2, last sentence: If all the lagoon water and sand directly enter the jurisdiction of the Sanctuary, why isn't MBNMS always involved in these decisions? As a physical scientist, I do not know all the biological impacts, but I know there is a lot of sediment moving around, potentially leading to loss of sediment from the system (permanent erosion).

Page 67 last paragraph: Has the following been changing since the harbor was created: “(3) an increased tidal prism with increased flow in and out of the slough with the creation of the harbor”?

General questions on this Action Plan:

- 1) Why does the table on p. 71 only include the first four CESMs?
- 2) The list of potential partners does not include Stanford or Moss Landing Marine Labs.
- 3) I think the sanctuary should always be involved in discussions on whether a river mouth is breached or not. I can imagine water quality in the Salinas River is not awesome (did you notice the algal bloom recently!?), and ultimately that enters MBNMS jurisdiction, affecting assets.

Page 67-68: The proposed actions for CESM-3 look excellent, in terms of supporting management and science at Elkhorn Slough.

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One data gap that is hampering assessment of recent management strategies and development of new ones is the lack of recent bathymetry in the main channel of Elkhorn Slough (MBNMS waters). I wonder if an action of attempting to support/facilitate such monitoring could be added?

I'd also recommend adding additional actions, either here or as a part of CESM-4 or CESM-5, to explore and facilitate the possibility of using dredged sediments to restore salt marsh in Elkhorn Slough. The Elkhorn Slough NERR is currently in discussion with the Moss Landing Harbor District about this topic, and the MBNMS is engaged as well, so this seems worth raising. In my biased view, there is no better use of clean dredged sediment than bringing back salt marshes where elevation was lost due to diking.

Since we're engaged in CESM-3 for sure, and maybe these new proposed actions, please list ESNERR among potential partners on page 70.

A comment similar to the one I gave for the Climate Change section – I was surprised not to see more emphasis on climate change effects in this action plan for coastal erosion & sediment management. For example, the stated goal of this management plan is to “reduce human-caused coastal erosion,” (which could include climate change in an abstract sense, but in the Introduction this is explained further to be a focus on local engineering efforts). I agree with the strategies outlined in this action plan but would have liked the text to highlight the linkages between this topic and climate change. Of course, in my line of work, there is pretty much no distinction! I was also wondering how difficult it might be to evaluate the effects of local-made changes (e.g., shutting down the CEMEX sand plant, or nourishing a beach) if climate change effects (or a strong El Niño, etc.) obscure these signals.

Strategy CESM-5. Perhaps it's already embedded, but CeNCOOS and its members can assist with particle/plume tracking/modelling.

Davidson Seamount Management Zone and Sur Ridge Action Plan

Strategy DS-1: Given the extensive uncertainty over species presence and behavior in this key area, conducting a site characterization is rightly identified as an important objective - just knowing better what is out there. However, while various means of sampling are identified in activities 1.1-1.3, there are some missing tools that could/should be brought to bear. Most of the approaches described are oceanographic and/or water/sediment sampling. There should be more specific methods to characterize highly mobile and vocal protected species. Specifically, these sampling efforts should include some passive acoustic sampling and they should be coupled in some way with the NOAA Soundscapes initiative mentioned in several other places. I'm not suggesting that there be bottom-mounted recorders as are deployed in other parts of the sanctuary - it's very deep and hard/expensive to do that. However, coupled with some of the other sampling mentioned, even relatively short-term drifting buoys could generate useful data in terms of species presence and behavior relative to other areas of the sanctuary. Remote tag deployments targeting this area for archival tags could be another tool used to understand how individuals may use and relate to these areas as well.

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Activity 1.1: I don't see any description of ongoing or anticipated future geology research. Seems like a high priority for understanding habitat quality and water quality (i.e., warm temperature seeps) for benthic fauna.

Activity 2.2: Add "and MLML" at the end.

From the Introduction regarding Davidson Seamount

Pages 29 – 30: Regarding the text: "Seamounts create complex current patterns influencing sea life above them." Comment: I would agree but think that the sedentary invertebrate assemblages on the top and sides of seamounts are the primary ecologically important ones and that most fishes and other invertebrates associate with them. The currents and eddies above seamounts really depend upon the depth – more so, in shallower seamounts.

Pages 29 – 30: Regarding the text: "Commercially valuable fish species often concentrate around relatively shallow seamounts." Comment: Yes, relatively shallow – the DSM is quite deep.

Page 29, second half of last paragraph: The following text does not seem relevant to Davidson: "Evidence for concentrations of fish and zooplankton over seamounts due to enhanced primary productivity is sparse and some suggest productivity over seamounts is more influenced by the physical prevention of zooplankton diurnal diel migrations to deep water, making the zooplankton more vulnerable to predation. The proximity of the seamount summit to the sea surface is likely an important variable that could influence water column productivity but has not yet been definitively addressed."

Page 30: Regarding the statement "Davidson Seamount has large assemblages of corals and sponges adjacent to each other, which has not been observed at other seamounts." My question is: Not observed anywhere? Ever?

Page 37, third paragraph: Text: "Some threats exist, such as vessel traffic..." Does vessel traffic really have an impact at this depth? At the end of this sentence add "and potential changes in oxygen gradients."

Emerging Issues Action Plan

In general, the Emerging Issues Action Plan tends to put off to tomorrow what you have already done in developing this Plan. I think much of this should be rephrased from a "we will develop criteria" approach to a "we will use these criteria" approach. The following are examples:

Goal: "Develop a system to identify, track, and appropriately respond to emerging issues..." I think this Action Plan has already done this.

"MBNMS staff must develop and use a process to determine the importance and priority of issues as they arise." This Action Plan already describes this process.

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Activity 2.1. “Identify and define criteria...” A good set of criteria is then listed. I suggest just stating these as criteria. Change is constant; these are good criteria over the next five years.

Activity 2.2: “Outline alternative categories and processes...” Again, the stated categories and processes are fine. Why say they need to be developed? Just present them here as the Plan.

Activity 2.3: “Identify process for bringing emerging issues forward to the Sanctuary Advisory Council where necessary.” It seems the process is just to put them on the agenda when they reach a criterion threshold. Again, I think this activity has been completed.

One emerging issue that might be worth mentioning is aquaculture. There are thoughtful uses of aquaculture that accomplish conservation goals (such as using hatchery-raised abalone or oysters to increase numbers of decimated native populations, or harvest of cultured biomass from polluted waterbodies to reduce nitrate concentrations). There are also forms of aquaculture that are destructive of habitat or risk introduction of non-native species. MBNMS should probably be involved in discussion and perhaps development of a plan for the region in the coming decade.

Introduced Species Action Plan

Managing pathways, p. 84: Since there is currently a push to increase offshore aquaculture, I’d strongly recommend some language here indicating that the MBNMS would oppose aquaculture of non-native species.

Strategy IS-6, Implementation in Elkhorn Slough, p. 86: I would propose adding an additional activity to minimize placement of extensive additional artificial hard substrates in the estuary, since these often host communities of non-native fouling species. Where hard substrates are deployed, efforts can be made to design or place them in ways to favor native over non-native cover. For instance, for oyster restoration, hard substrates can be deployed at the upper elevational limit of oysters, which is too high for the survival of most tunicates, sponges, and bryozoans. When possible, shoreline protection (of parking lots, bridges, etc.) could involve living shorelines (marsh with horizontal levees, or natural substrates to host oysters) rather than concrete, rip rap, etc., with the goal of enhancing native communities rather than non-native. This comment applies to artificial reefs.

Strategy IS-4. For partner collaboration, CeNCOOS is working with OPC, CDFW and others on integrating several data streams that will contribute to documenting occurrences of introduced species.

Marine Debris Action Plan

Strategy MD-2: This is a pressing and dire issue with many animals dying on a regular basis in MBNMS. My comment is simply that these education and outreach programs, which are logically constructed and directed, should have sufficiently urgent and honest messaging given the importance of the issue. Too often I see educational materials that are a little too glossed over in terms of the real and gory impact of marine debris given that the materials are for kids and schools. I think we need to be candid and complete in how this is messaged, both in terms of the

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reality of how debris kills animals and as specific as possible about goals of what people can do. Reflect the reality and urgency and don't softball it too much.

Water Quality Protection Program Action Plan

Activity 1.3, p. 98 or somewhere here: I'd suggest explicitly indicating that MBNMS will be engaged in the various TMDL efforts in MBNMS waters, including the current nutrient/biostimulation TMDL in Elkhorn Slough. The Regional Water Board has gotten very little participation in this TMDL, and is seeking input on desired endpoints, on nutrient thresholds, etc. MBNMS involvement in this seems worth calling out, since sanctuary resources are directly impacted by nutrient pollution (algal mats choking out eelgrass, hypoxia decreasing flatfish production, etc.).

Activity 2.1. I'd love to see explicit mention of the need to better characterize agricultural pesticide effects on sanctuary resources in Elkhorn Slough -- very little is known about impacts on fish, sea otters, etc., and yet there is likely much to uncover here, since high concentrations are found.

Strategy WQ-6. HABMAP is a substantial and growing harmful algae bloom monitoring effort that includes multiple sites in the sanctuary (<https://calhabmap.org>), with a policy focused bulletin (e.g. <https://sccoos.org/california-hab-bulletin/may-2020/>) and soon to have multiple real-time monitoring systems operating through CeNCOOS.

Goal: Delete "to."

Page 95, 5th paragraph: Should the Golden Gate be listed as a discharge point for pollutants to MBNMS.

Page 95: Some mention should be made of mercury and PCBs in mussels, fish and marine mammals in Monterey Bay and elsewhere in MBNMS. You might ask Dane Hardin (CCLEAN) or Jay Davis at (SFEI) for the best recent summary.

AQWA is mentioned a dozen times. The website is separate from MBNMS. Do MBNMS staff maintain that website and calendar? I know direction of AWQA may be in flux, but should there be anything in this Management Plan about MBNMS staff's role in the future of AQWA? Feel free to disregard this comment if it raises more issues than it clarifies.

Activity 1.2: In the sentence... "MBNMS staff will review and provide comments on any NPDES permits discharging directly..." Delete "discharging" and replace with "for discharges".

Activity 1.7: Is this Activity still up to date? Has the MOA been renewed, or will it expire on September 1, 2020? That expiration date is before release of this Management Plan.

Activity 2.1: Aren't these research questions available in the Condition Report or Science Needs report? It's not ideal to have a plan to do planning. I'd take what we have and say the relevant research questions are in these reports (provide link and page numbers, etc.), Then the last sentence of this paragraph works great.

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Activity 2.2: Excellent.

Activity 2.4: You should mention that caffeine as a proxy for human waste. Otherwise it seems trivial.

Activity 2.5: This is the first mention of HAB. Should it be spelled out? (Note: There are very many places in the Plan where acronyms are not spelled out at first use. I expect this is by design for brevity (and I see the acronym appendix), so this comment can be disregarded, or else the whole document should be searched for first uses of acronyms so that they are spelled out there.)

Strategy WQ-4: First paragraph: Delete the phrase "...better calculate contaminant loading, informative for prioritizing true pollution problems." Replace with "better calculate contaminant loading and estimate pollutant exposure in coastal waters."

Activity 4.4, second line: Delete "any reports of."

Strategy WQ-5, Intro paragraph: Delete the sentence: "Other opportunities to inform and educate the public about water quality conditions will be used." This is what all the Activities describe. Potential Partners: Should you add "many municipal and county agencies"?

Wildlife Disturbance Action Plan

Activity 7.3, p. 113: There are a lot of hooks and fishing line in sanctuary waters in Elkhorn Slough adjacent to the Moss Landing Wildlife area and Kirby Park. Partnering on efforts to provide disposal bins and educational signs about wildlife damage resulting from discarded materials would be great to consider.

Strategy WD-1: These kinds of disturbances are all spatially and temporally explicit based on when/where they occur and how this relates to potentially impacted species. All nine Activities listed here seem useful and relevant, but they could in some ways come together in identifying potentially important/vulnerable times and areas for disturbance to occur. Specifically, I would suggest that these activities, as well as examples directly from the Soundscapes project, would be logically culminated in a spatially and temporally explicit assessment of disturbance risk in different areas and seasons, especially for key species. I'm suggesting an integrated risk assessment based on patterns of distribution and behavior of animals and people. That could be turned into some targeted awareness and action that is tuned on a finer scale in location and time than this and previous Actions would seem to suggest. This is logically part of the compliance assessment mentioned, but it should be more specific about the spatial-temporal resolution of this and I think should be conducted in the form of risk assessment.

Strategy WD-3: Develop acoustic baseline profiles within MBNMS. This is a rapidly evolving situation with a lot of progress made since the Action Plan was likely written. But there is a lot of progress and more to say about this that is already happening that is not reflected in here. Main comment is that this is a lot further along and more explicit than this currently suggests is the

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case - which may be fine. But there are more things happening here already than are even called for in the Strategy. Suggest a slight update to this in the final plan with some of these details.

Activity 4.2: Include best management practices for minimizing acoustic interference with marine wildlife from motorized tour boat operations in the sanctuary wildlife etiquette guidelines (see Activity 1.2) and disseminate to tour operators. I'm just strongly seconding this and encouraging that it be as science-based as possible and that it take specific lessons/observations from the Soundscapes effort where different vessels are being characterized. Some little things in how the tour boats operate (like drifting to a stop versus putting vessel in reverse to stop) seem minor but could have major real acoustic impacts. Suggest focusing on some of these kinds of operational measures versus just distances/speeds.

Activity 4.3: This is very good and some great things happening with the display in the center. I would suggest that there be some specific mention/link here in the Action Plan to the Soundscapes project and specifically the "stories" about MBNMS that are being put together to address specific and related things (like seal bombs, cruise ships, etc).

Education, Outreach, and Communication Action Plan

No Comments received.

Marine Spatial Planning Action Plan

Strategy MSP-5: CeNCOOS is developing a curated data view tool that will be used by OPC, CDFW and others to describe MPA conditions, providing ready access to a variety of time series data for change in specific MPAs and bioregions. CeNCOOS is planning to mirror this capability for the NMS areas in our region, as well as for the BOEM call areas (see also Strategy MSP-7). This can also provide data streams for Strategy RM-2 (SIMoN) and RM-4 Activity 4.3.

Maritime Heritage Action Plan

No Comments received.

Operations and Administration Action Plan

No Comments received.

Research and Monitoring Action Plan

The Research and Monitoring Action Plan was extensively reviewed by the RAP in the previous draft. This Action Plan looks very good. No suggested revisions were received. The actions related to long-term monitoring and information dissemination are consistent with the recommendations of the RAP.

Resource Protection Action Plan

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Strategy RP-1: The last line states “Below are two additional collaborative resource protection programs.” This is followed by four Activities, all involving partner collaboration.

Activity 1.1: “biogenic hot spots” is given as the object of SESA work. A common dictionary definition for biogenic is “produced or brought about by living organisms.” In this Activity, are we talking about habitat created by sponges and corals? That seems limiting as a focus for SESA work, but perhaps a tight focus is what is intended here.

Strategy RP-2, First line: Replace “data is” with “data are.” Search/change the entire document for this error. (I found two other instances. There may be more.) Small detail, yes, but fingernails on the blackboard for scientists.

Strategy RP-2, First sentence: Why limit the need for socio-economic data to the ecosystem components listed in parentheses: “(... wildlife, including whales, pinnipeds, sea otters, and seabirds)”? I suggest deleting the parenthetical phrase or otherwise broadening the intent of this goal.

Strategy RP-2: I understand the need to limit the scope of this strategy, but it seems that a placeholder Activity should be added to take advantage of other opportunities that may arise. This could be something like: “Collaborate with partners when other opportunities arise to better understand the social and economic aspects of sanctuary operations.”

Text Other than Action Plans

Page 25: Elkhorn Slough is described as California’s second largest coastal wetland. That’s not true, it’s smaller than Humboldt for sure (as is noted correctly on P. 31), maybe a few others. It has the most extensive salt marshes in the state south of San Francisco Bay, if you want to boast of that!

Page 55: The photo from Elkhorn Slough is labeled “bryozoan,” when in fact it is a Polychaete (*Ficopomatus enigmaticus*).

Contact

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