7 August 2019

Dear Ocean Protection Council:

We would like to emphasize the need for estuaries in the state to be a higher priority for OPC in the coming decade than they have been in the past. Estuaries are key to our coastal ecosystems and economies, serving as recreational destinations for both tourists and local residents, nurseries for fisheries species, stopover sites for migratory birds along the Pacific Flyway, and a host of other ecosystem functions and services. Unfortunately, estuaries have also suffered far greater habitat loss, hydrological alterations, and biological invasions than other coastal systems. Four estuaries in California – Tomales Bay, Bolinas Lagoon, San Francisco Bay, and Elkhorn Slough – are currently recognized as Wetlands of International Importance under the Ramsar Convention. In the future, these systems will be especially vulnerable to sea-level rise and other climate-related changes. As such it is critical that they be a front and center priority for the OPC.

Our team at the Elkhorn Slough (encompassing both the National Estuarine Research Reserve and the Elkhorn Slough Foundation) recently reviewed OPC's Draft Strategic Plan and submitted comments on 16 April 2019. We would now like to provide some recommendations regarding estuaries to your upcoming discussion of top priorities to inform the Strategic Plan (Agenda item #4 for the Aug. 14, 2019 meeting):

- Given past alterations and current rates of change that estuaries are experiencing, we strongly recommend greater investments in estuarine monitoring than in the past, so adaptive management can apply the lessons learned from this monitoring.
- We recommend a greater focus on salt marsh resilience. OPC has emphasized the role of seagrass beds in carbon sequestration and habitat for estuarine life. Salt marshes in California account for orders of magnitude more estuarine habitat and carbon sequestration potential, and there is a critical need for restoration and science to test strategies for enhancing their resilience in the face of climate change.
- Given your stated concern about social equity, the OPC should recognize that estuarine ecosystems provide excellent opportunities for social equity, due to their greater accessibility to all communities than most other coastal habitats. They offer many hospitable educational programs and venues for school children, community members, and tourists alike.
- As many of the greatest threats to California's estuaries originate on land, the OPC should prioritize strategic land acquisition in coastal watersheds to protect water quality, promote habitat restoration, and allow for landward migration of ecosystems and adaptation to sea-level rise.

We appreciate the opportunity to once again highlight the importance of estuaries among California's coastal systems, and to encourage the OPC to embrace them as a key focus for you in the next decade. We remain eager to partner with you as you incorporate estuaries into your action plans in the future

Cordially,
Dr. Kerstin Wasson, Research Coordinator, Elkhorn Slough NERR
Dr. Daniel Brumbaugh, Coastal Training Program Coordinator, Elkhorn Slough NERR
Dash Dunkell, Stewardship Director, Elkhorn Slough Foundation
Boyce Thorne-Miller, Elkhorn Slough NERR Volunteer, Bluecology Board Member,
The Ocean Foundation Senior Fellow

Wyer, Holly@CNRA

From: CNRA COPC Public
Sent: Thursday, August 8, 2019 3:56 PM
To: COPC Public Distro List
Subject: FW: Response letter from the Port of San Diego on OPC's priorities
Attachments: SDUPD Response Letter to Ocean Protection Council RE Public Input on OPC's priorities 08-08-19.pdf

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From: Heather Kramp
Sent: Thursday, August 8, 2019 3:56:16 PM (UTC-08:00) Pacific Time (US & Canada)
To: CNRA COPC Public
Subject: Response letter from the Port of San Diego on OPC's priorities

Good afternoon Ms. Eckerle,

Thank you for the opportunity to comment on the Ocean Protection Council's priorities over the next five years. Please find attached to this email a response letter from Jason Giffen on behalf of the Port of San Diego. In addition, Eileen Maher, Director of the Port's Environmental Conservation Department, will be at OPC's public meeting on August 14 to give public comment.

Please let me know the letter has been received and I am available to answer any questions.

Thank you,

Heather Kramp
Assistant Planner | Environmental Conservation

3165 Pacific Highway, San Diego, CA 92101
(o) 619.686.8198 • hkramp@portofsandiego.org

PORT of SAN DIEGO

connect:

PORT of SAN DIEGO

VIA EMAIL

August 8, 2019

Jenn Eckerle
Deputy Director
Ocean Protection Council
1416 Ninth Street, Suite 1311
Sacramento, CA 95814
Email: COPCpublic@resources.ca.gov

Subject: Request for Public Input on Ocean Protection Council's Priorities

Ms. Eckerle:

The Port of San Diego (Port) appreciates the opportunity to provide comments on issues the Ocean Protection Council (OPC) should prioritize over the next five years and inform the development of OPC's strategic plan. The Port is a regional, public benefit agency created in 1962 through the California State Legislature's adoption of the San Diego Unified Port District Act (Port Act). The Port is entrusted with managing and protecting the tidelands and diverse waterfront uses in and around San Diego Bay (Bay) in a manner that promotes navigation, commerce, fisheries, recreation, and environmental stewardship. In parallel with OPC's mission, the Port's mission and strategic goals include protection and improvement of the Bay's environmental resources and the Port is directly working to assess, manage, and adapt to current and future ocean and coastal opportunities and challenges.

Regarding OPC's request for comment on priority issues for the next five years, the Port respectfully offers the following two comments and requests that OPC consider the unique needs of the Port, and all ports, harbors, and working waterfronts, when considering priority issues.

1. **Prioritize strategies focused on coastal community resilience and protection of Public Trust uses and assets.**

As a grantee of the tidal and submerged lands in and around San Diego Bay, it is the Port's mission to protect and promote the Public Trust Doctrine. The Public Trust uses are for the benefit of all Californians and OPC should prioritize the protection of these vibrant components of California's sustainable ocean economy. In addition to protection of natural resources, coastal-dependent uses, such as fisheries, navigation, and

commerce will need to be protected and require comprehensive solutions and planning to adapt to climate change.

2. **Prioritize nature-based climate adaptation strategies including living shorelines, sustainable shellfish and seaweed aquaculture development, and wetland and blue carbon mitigation banking.**

The development and enhancement of living systems and natural infrastructure, such as eelgrass beds, wetland habitats, and living shorelines, is one strategy the Port is exploring to adapt to coastal climate change impacts and support coastal habitat restoration in San Diego Bay and the surrounding tidelands. In addition, fostering sustainable domestic aquaculture and Port-related blue tech innovation helps fulfill the Port's public trust responsibility to promote fisheries and commerce, as well as aligning with our mission to enhance and protect the environment. Shellfish and seaweed aquaculture, restoration of habitats through mitigation banking, and living shorelines also offer multiple co-benefits, such as fisheries enhancement, ecosystem restoration and services, bioremediation, carbon sequestration, buffering against sea level rise and ocean acidification, and education and outreach opportunities, while also protecting coastal-dependent uses.

In recent years, the Port has increased its communication and engagement with OPC on its goals and initiatives, including sea level rise and ocean acidification, and is grateful for past and future opportunities to collaborate with OPC. Port staff are available to discuss these topics further.

If you have any questions, please do not hesitate to contact Eileen Maher at (619) 686-6254 or via email at emaher@portofsandiego.org, or myself at (619) 686-6473 or via email at jgiffen@portofsandiego.org, if you have any questions or need any further information.

Sincerely,

Jason Giffen
Assistant Vice President
Planning & Green Port

cc: Eileen Maher, Director, Environmental Conservation
Heather Kramp, Assistant Planner, Environmental Conservation

From:	CNRA COPC Public
To:	COPC Public Distro List
Subject:	FW: Comments on OPC priorities - Submitted by Dr. Jenn Caselle, University of CA Santa Barbara
Date:	Friday, August 9, 2019 1:35:07 PM

From: Jenn Caselle
Sent: Friday, August 9, 2019 1:34:59 PM (UTC-08:00) Pacific Time (US & Canada)
To: CNRA COPC Public
Cc: Eckerle, Jenn@CNRA
Subject: Comments on OPC priorities - Submitted by Dr. Jenn Caselle, University of CA Santa Barbara

Comments on OPC priorities

Submitted by Dr. Jenn Caselle, University of CA Santa Barbara

Dear Council,

Having previously commented on an earlier draft of the CA Ocean Protection Council Strategic Priorities to Protect California's Coast and Ocean 2019- 2024, I will reiterate what I consider to be top priorities for the CA OPC moving forward. I commend the staff on creating a draft strategic plan that was well thought out and I would highlight the importance of the council in continuing to take a science driven approach on priorities.

Since the previous document was thorough and took into account comments from a variety of stakeholders, I will pull directly from its Goals and Objectives. A critical priority for the council should be in Goal 2- PROTECT AND RESTORE COASTAL AND MARINE ECOSYSTEMS. The following particular objectives will ensure a science driven approach to marine management and protection as well protecting the large investments in Marine Protected Areas that the state has already made. California is a world leader in MPA science and implementation and continued monitoring and analysis in the face of climate change will only enhance the State's standing in the global MPA world as well as ensuring coastal protection for decades to come.

PRIORITIES SHOULD BE:

Objective 2.1: Ensure the long-term success of California's MPA network, consistent with the goals of the Marine Life Protection Act. Proposed Actions:

● Fund and manage statewide ecological and socioeconomic monitoring of the MPA network, consistent with the state's MPA Monitoring Action Plan 7, in preparation for the ten-year MPA management review in 2022.

● Identify and fund innovative, sustainable, and cost-effective methods to continue MPA monitoring beyond the 2022 review. .

● Mitigate the impacts of power plants using once-through cooling technology by funding projects that increase marine life associated with MPAs.

Objective 2.2: Cross-Cutting Objective: Leverage California's MPA network to further enhance coastal and ocean ecosystem resilience. Proposed Actions:

● Communicate the results of MPA monitoring efforts to inform fisheries management, linking the goals of the Marine Life Protection Act and the Marine Life Management Act.

● Increase engagement of commercial and recreational fishing communities in MPA management.

● Fund innovative research to improve understanding of the role of MPAs in providing resilience to climate change impacts.

● Ensure that long-term MPA monitoring and performance evaluations are placed in the context of changing ocean conditions**.**

Objective 2.3: Cross-Cutting Objective: Promote healthy kelp forest ecosystems along the California coast. Proposed Actions:

● Fund scientific research and monitoring projects to investigate critical knowledge gaps regarding kelp forest ecosystem protection and recovery.

● Develop a cost-effective and robust strategy to map the current extent of California's kelp forests to inform adaptive management of kelp forest ecosystems.

● Collaborate with the California Department of Fish and Wildlife and California Fish and Game Commission to develop coordinated state policy for kelp management in the face of changing ocean conditions.

● Fund science-based pilot projects to explore kelp forest ecosystem restoration and management approaches.

Sincerely,

Dr. Jenn Caselle

Dr. Jennifer Caselle
Marine Science Institute &
National Center for Ecological Analysis and Synthesis
University of California Santa Barbara
Santa Barbara, CA 93106

Office 805-893-5144
Lab 805-893-2937
Fax 805-893-8062

https://labs.eemb.ucsb.edu/caselle/jennifer/
www.instagram.com/casellelab/
www.facebook.com/CaselleLab

Clean Water Summit Partners
1225 L Street, Suite 595
Sacramento, CA 95814
p: 916.446.0388

Summit Partners:
- Bay Area Clean Water Agencies (BACWA)
- California Association of Sanitation Agencies (CASA)
- Central Valley Clean Water Association (CVCWA)
- California Water Environment Association (CWEA)
- Southern California Alliance of Publicly Owned Treatment Works (SCAP)

August 12, 2019

Sent via electronic-mail to: COPCpublic@resources.ca.gov

Wade Crowfoot, Secretary for Natural Resources
Chair, California Ocean Protection Council
California Natural Resources Agency
1415 Ninth Street, Suite 1311
Sacramento, CA 95814

Subject: Priorities for the OPC 2019-2024 Strategic Plan

Dear Mr. Crowfoot,

The Clean Water Summit Partners appreciate the opportunity to provide input to the Ocean Protection Council ("OPC") on priority issues to include in the OPC's 2019-2024 Strategic Plan ("Strategic Plan"). The Clean Water Summit Partners ("Summit Partners") are the state and regional wastewater associations committed to working together on issues of critical importance to our collective memberships. The Summit Partner associations include the Bay Area Clean Water Agencies (BACWA), the California Association of Sanitation Agencies (CASA), the Central Valley Clean Water Association (CVCWA), the California Water Environment Association (CWEA), and the Southern California Alliance of Publicly Owned Treatment Works (SCAP). Together, our member agencies provide wastewater collection, treatment, and water recycling services to millions of Californians.

In brief, the Summit Partners believe the OPC should prioritize Objective 1.1 in its Draft Strategic Plan for 2019-2024 pertaining to the improvement of scientific understanding of how climate change alters coastal and marine ecosystems, and Objective 6.2 relating to increasing coordination with local partners for coastal and ocean policy and management decisions. Prioritizing Objective 1.1 will logically extend to issues within the strategic plan's fourth goal of improving coastal and ocean water quality, as we highlight below. Likewise, by prioritizing Objective 6.2, the OPC can bolster its organizational effectiveness through engaging and relying upon the scientific expertise at local agencies which can help inform management decisions, and in turn may enable better coordination and implementation of prescribed actions. Emphasizing these priorities and putting the science first, ahead of recommending actions, is consistent with the OPC's mission of protecting California's coastal and ocean resources by advancing innovative, science-based policy and management through partnerships and collaboration.

1. The OPC Should Prioritize Improving Scientific Understanding of How Climate Change Alters Coastal and Marine Ecosystems, and Promote Better Scientific Understanding of Methods and Processes for Identifying the Presence and Impacts of Microplastics and Microfibers.

Objective 1.1 in the Draft Strategic Plan calls for improving our scientific understanding of how climate change alters coastal and marine ecosystems. The wastewater community is particularly interested in and has been active in addressing Draft Strategic Plan Objectives 4.2 and 4.4, relating respectively to reducing microplastic pollution and addressing nutrient issues. Those objectives explicitly acknowledge that more research is needed to increase understanding of these issues and that more complete information is needed to assess the impacts of these items, so we support prioritizing this objective.

With regard to microplastics, CASA recently sponsored Senate Bill 1263 in 2018 which then-Governor Brown signed. This bill requires the OPC to research, adopt, and implement a Statewide Microplastics Strategy related to materials which pose an emerging concern for ocean health. We support this endeavor and the ongoing scientific development of methods to increase our understanding of the scale and impact of microplastics in the environment. Taking these steps will ensure that science-based policies for the strategy will address the sources of and pathways for microplastic pollution to enable the most effective mitigation actions. In this way, Objectives 4.2 may be advanced and achieved.

Similarly, with regard to nutrients and ocean acidification, there are foundational scientific questions which still need to be answered before any specific or targeted actions are adopted and implemented. For example, there is still a question as to whether ocean wastewater dischargers are creating or significantly contributing to ocean acidification impacts that would potentially warrant regulatory action, and more notably, whether those impacts are or would be meaningful in light of the role of atmospheric CO_2 levels, warming temperatures, and other contributors associated with large-scale climate change. Coastal dischargers already are comprehensively regulated through existing Waste Discharge Requirements (WDRs) and individual NPDES permits, so any additional remedial actions by ocean dischargers should be scientifically based before the OPC considers recommending changes to nutrient loading standards to address ocean acidification and hypoxia.

There also remains the question of whether there is a causal link between ocean acidification and non-point and point source discharges along the coast. Efforts by regulators to impose new requirements or actions on ocean dischargers should be predicated upon the OPC's work establishing where and what proportion of ocean acidification along the coast is due to local water-borne pollution and not general atmospheric pollution or other contributors such as those identified above. Given the overwhelming impact of upwelling and CO_2 emissions on ocean acidification, and the expected increase in these forces in the future, this threshold inquiry needs to be answered before further action is proposed. Likewise, the Summit Partners also recommend that the OPC include into this work an assessment of the financial, environmental, and societal costs associated with the incorporation of the technologies expected to deliver reduced pollutant loadings, just as there should be an evaluation of the significance of the anticipated benefits, in order to properly understand how much an intervention will reduce or delay the effects of ocean acidification in an area. This information is critical to assist decision makers and the public in deciding if, where, and when such efforts should be instituted.

Last, the Summit Partners recommend that as part of prioritizing Objective 1.1 as it relates to ocean acidification, the OPC should pursue a catalog of observational data gaps for ocean acidification. Such a catalog seemingly comports with the recent direction in the Executive Director's May 24 – August 14 report (page 3) for the OPC to develop an ocean acidification monitoring network gaps analysis guidance document so that key decisions by the California Natural Resource Agency and the Environmental Protection Agency result in effective management and mitigation of the effects of ocean acidification and hypoxia. Thus, by prioritizing Objective 1.1, the OPC will bring into focus practicable solutions that are responsive to and could mitigate impacts of ocean acidification and hypoxia caused by climate change.

2. The OPC Should Increase Coordination of Coastal and Ocean Policy and Management Decisions in California to Strengthen Organizational Effectiveness at the Local and State Level.

The Strategic Plan's sixth goal is to continue and increase collaborations with state, local, and regional partners. We wholeheartedly concur with the objective of this goal and believe that the OPC should prioritize Objective 6.2 to increase the coordination of coastal and ocean policy with local agencies and regional associations so that their decisions are in step with the OPC's objectives.

One example of such collaboration is in the Executive Director's May 24 – August 14 report (page 4) whereby the Coastal Commission identified the need for an additional OPC working group composed of coastal municipalities to talk about sea level rise, amongst other issues of mutual interest. Such a collaboration is essential for the Summit Partners' coastal members, as they are faced with protecting wastewater infrastructure from sea level rise. The Summit Partners would like to be a part of this workgroup so that we may coordinate our management decisions for adaptation with our state partners.

Another instance highlighting the need for such collaborations between the OPC, its affiliates, and local and regional governments is represented by interactions between the Summit Partner's members and the Southern California Coastal Water Research Project (SCCWRP). While some of the Summit Partners have been actively engaged in the work being done by SCCWRP in researching and modeling ocean acidification and hypoxia, technical experts outside of the modeling team have not yet validated the model and its assumptions. This absence of an independent expert review may result in a model for the OPC which yields scientifically unreliable guidance for policy decisions. For example, the biogeochemical elemental cycling (BEC) model, Moore et al. 2004[1], is the basis for a non-peer reviewed biogeochemical model being used by SCCWRP to answer the question of whether land-based anthropogenic nutrients are causing local impacts along the southern California coast. This question is complex and warrants targeted data collection and collaboration to help validate the theoretical modeling, but currently it is unknown and undocumented how the BEC model, which was designed for application to offshore, chronically iron-limited systems, has changed since being adopted for the Southern California coastal region which has greater physical, chemical, and biological complexity requiring nutrient models to use a more sophisticated approach than has been used to describe offshore, iron-poor regimes. This likely affects model outcomes, beyond other deficits in the model. Moreover, a scientific publication, Friedrichs et al. 2007[2], demonstrated that the basic model being used by SCCWRP to answer this question along the southern California coast stood out amongst a dozen models for its overestimation of phytoplankton blooms, which theoretically are causing ocean acidification and hypoxia. Hence, emphasizing an independent expert panel to validate the ocean acidification and hypoxia model, as well as securing the wastewater community's involvement in this process by prioritizing Objective 6.2, will ensure the alignment of the OPC's policy objectives with wastewater agencies' management decisions for the future.

Conclusion

We look forward to working with the OPC in the coming months and years as your 2019-2024 Strategic Plan is finalized and implemented. Please reach out for additional information on issues raised here.

Sincerely,

David Williams
BACWA Executive Director

Roberta L. Larson
CASA Executive Director

Debbie Webster
CVCWA Executive Officer

Jenn Jones
CWEA Executive Director

Steve Jepsen
SCAP Executive Director

cc: Mark Gold, Executive Director

[1] Moore, J. K., Doney, S. C., and Lindsay, K. (2004), Upper ocean ecosystem dynamics and iron cycling in a global three-dimensional model, *Global Biogeochem. Cycles*, 18, GB4028, doi:10.1029/2004GB002220.

[2] Friedrichs, M. A. M., et al. (2007), Assessment of skill and portability in regional marine biogeochemical models: Role of multiple planktonic groups, *J. Geophys. Res.*, 112, C08001, doi:10.1029/2006JC003852.

From:	CNRA COPC Public
To:	COPC Public Distro List
Subject:	FW: Public Comment for OPC Meeting August 14, 2019: Ocean litter from deteriorating harbor facilities and homeless encampments
Date:	Monday, August 12, 2019 8:51:34 AM

From: Eva Cicoria
Sent: Monday, August 12, 2019 8:51:22 AM (UTC-08:00) Pacific Time (US & Canada)
To: CNRA COPC Public
Cc: Wyer, Holly@CNRA; shellym@sccwrp.org
Subject: Public Comment for OPC Meeting August 14, 2019: Ocean litter from deteriorating harbor facilities and homeless encampments

Dear Members of the Ocean Protection Council and Staff,

I kayak weekly, often in Los Angeles Harbor, occasionally elsewhere, picking up trash and documenting what I am finding. I have been doing this for over 10 years, often with friends or family.* Conditions are not improving. Much of the trash is plastic; much of it appears to be consumer-originated, single-use items. I know the Ocean Protection Council, through the Ocean Litter Strategy, is focused on this and rightly so. I wonder, though, whether attention is also being given to two other major sources of litter making its way to the sea: 1) litter shed from deteriorating infrastructure and facilities and 2) litter from river banks, much related to homeless encampments.

In support of continued attention to the plastic litter (particularly single-use plastic) that makes its way year-round to harbor waters, the following is a slide (presented to the LA Board of Harbor Commissioners 7/25/19) showing litter picked up while kayaking different days throughout the year. The last photo in the slide is from 7/14/19 when our haul was 1,052 pieces, 827 of which were bits of polystyrene/Styrofoam.

The following five slides show something you may be less aware of: deteriorating infrastructure and facilities at three locations--LA Harbor, Long Beach (at the terminus of the LA River), and Redondo Beach (King Harbor), although this is likely happening all along the coast of California. Booms (plastic-wrapped and often polystyrene-filled) have broken free and are floating out to sea. Fenders are falling off docks. Polystyrene floats are degrading, breaking off in bits and chunks and falling into the sea. Other miscellaneous facilities are falling apart as well, including upholstery-wrapped lumber falling off docks and signs shedding plastic. We have retrieved some of each of these from waters hundreds of yards from where they originated.

Litter Shed by Facilities/Infrastructure: Plastic-Wrapped Booms


LA Harbor, January 19, 2019

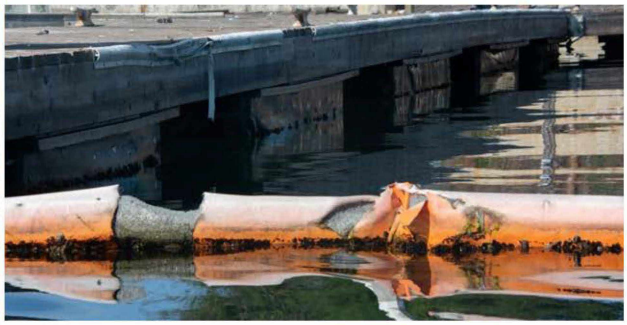

Long Beach, August 3, 2019


LA Harbor, July 28 , 2019


Long Beach, August 3, 2019

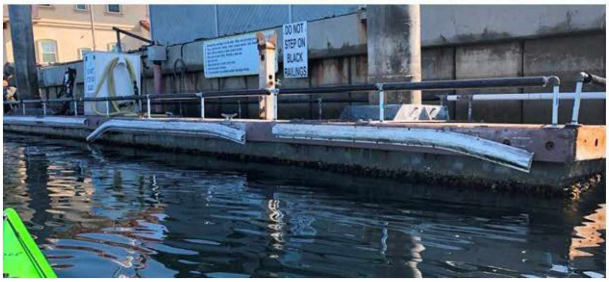
Litter Shed by Facilities/Infrastructure: Plastic & Polystyrene


LA Harbor, July 28 , 2019



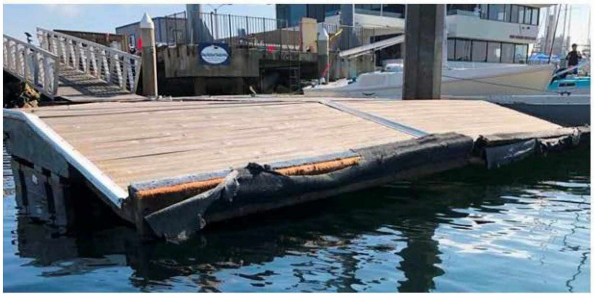
Litter Shed by Facilities/Infrastructure

Redondo Beach (King Harbor), August 10, 2019



Litter Shed by Facilities/Infrastructure

Redondo Beach (King Harbor), August 10, 2019



Litter Shed by Facilities/Infrastructure: Signs Shedding Plastic

The next slide shows the heavy litter load along the banks of the LA River near its terminus in Long Beach. Much of it appears to be associated with homeless encampment. Much of it is plastic. Much of it migrates down the embankment until rising tide carries it out to sea.

LA Riverbank: Long Beach, August 3, 2019

As you can imagine, in the face of these conditions, picking up ocean litter during a paddle out seems a Sisyphean task, yet giving up is not an option. Please consider the impact of these conditions on our ocean, the marine life in it, and ultimately our own well-being as you apply resources and authorize action to address the ocean litter problem.

Sincerely,
Eva Cicoria

*

Background: 2009-2019

From:	CNRA COPC Public
To:	COPC Public Distro List
Subject:	FW: Support for Ocean Litter Reduction and Prevention as an OPC Priority
Date:	Wednesday, August 7, 2019 2:24:49 PM

From: Trish Mulvey
Sent: Wednesday, August 7, 2019 2:24:42 PM (UTC-08:00) Pacific Time (US & Canada)
To: CNRA COPC Public
Subject: Support for Ocean Litter Reduction and Prevention as an OPC Priority

On behalf of CLEAN South Bay, it is my pleasure to recommend that the Ocean Protection Council continue to make ocean litter reduction and prevention a priority in the next strategic plan.

We recognize and appreciate the leadership role of the OPC in facilitating the individual and collective efforts of a wide and diverse array of stakeholders in working to avoid and remediate ocean pollution – with special attention to plastic products and source control. Please continue that support.

Sincerely yours,
Trish Mulvey
Cofounder, CLEAN South Bay
527 Rhodes Drive, Palo Alto, CA 94303
mulvey@ix.netcom.com or (650) 326-0252

cc: Interested Parties

Wade Crowfoot
Secretary for Natural Resources
Chair, California Ocean Protection Council
California Resources Agency
1416 Ninth Street, Suite 1311
Sacramento, CA 95814
COPCpublic@resources.ca.gov

August 8, 2019

Comments on Agenda Item No. 4 – Discussion of Top Priorities to Inform OPC's Strategic Plan

Dear Secretary Crowfoot and Members of the Ocean Protection Council:

The Natural Resources Defense Council appreciates the Ocean Protection Council's (OPC) leadership in protecting marine and coastal ecosystems and welcomes this opportunity to comment on the next iteration of OPC's strategic plan.

As OPC is well aware, there are numerous threats to California's coastal and marine ecosystems, including systemic imbalances driven by climate change, a range of challenges to maintaining sustainable fisheries, and continuing marine and coastal water quality issues. Given these many and varied threats, it is difficult to select one or two top priorities that should be elevated in OPC's strategic plan. We appreciated the breadth of issues covered in OPC's draft strategic plan[1] issued in spring 2019 and we hope OPC takes a similarly comprehensive approach in drafting its next strategic plan.

We submit for your consideration our April 19, 2019 comments to OPC's draft strategic plan. Should you have any questions about the matters raised in our comments, we would be happy to discuss them further.

Sincerely,

Irene Gutierrez
Senior Attorney, Oceans Program
Natural Resources Defense Council
111 Sutter Street, 21st Fl.,
San Francisco, CA 94104
igutierrez@nrdc.org

[1] Ocean Protection Council, *Strategic Priorities to Protect California's Coast and Ocean 2019-2024*; http://www.opc.ca.gov/2019/03/opcs-2019-2024-draft-strategic-plan-is-available-for-public-comment/

Wade Crowfoot
Secretary for Natural Resources
Chair, California Ocean Protection Council
California Resources Agency
1416 Ninth Street, Suite 1311
Sacramento, CA 95814
COPCpublic@resources.ca.gov

April 19, 2019

Comments on *Strategic Priorities to Protect California's Coast and Ocean 2019-2024*

Dear Secretary Crowfoot and Members of the Ocean Protection Council:

The Natural Resources Defense Council appreciates the Ocean Protection Council's (OPC) leadership in marshaling and coordinating state resources to protect marine and coastal ecosystems. We support the broad goals outlined in OPC's five-year strategic plan and submit these comments to highlight key principles we hope OPC will take into account as it finalizes and implements its strategic plan.

1. **Safeguarding Coastal and Marine Ecosystems and Communities in the Face of Climate Change**

We support OPC's goal of safeguarding coastal and marine ecosystems from the effects of climate change (Objectives 1.1 to 1.4). Like OPC we believe that advancing scientific research, enhancing resilience in natural and built environments, and coordinating state and local policy responses are all important for meeting that goal.

As OPC determines what measures to invest in, we encourage OPC to carry forward the actions identified in California's ocean-climate contribution, which was released during last year's Global Climate Action Summit.[1] That document identified an array of actions within state control, among them: promoting seagrass and wetland restoration, working with state agencies and local governments to ensure key decisions account for climate change, investing in ocean acidification and hypoxia research, and managing California's fisheries and marine protected areas to ensure their long-term health as ocean conditions change. We hope OPC will continue to support these actions through strategic investments.

2. **Protecting and Restoring Coastal and Marine Ecosystems**

[1] Sandy Aylesworth, *COP 24: California Announces its Ocean-Climate Contribution,* NATURAL

We strongly support OPC's goals to ensure the long-term success of California's marine protected area (MPA) network (Objectives 2.1 and 2.2). OPC has served as a leader in championing the State's MPA network and provided critical support to the California Department of Fish and Wildlife (CDFW), as well as to other agencies and nongovernmental organizations working to secure the success of the network. The state has made really strong progress – for example, the legislature passed AB2369 last year, CDFW has created a new Marine Enforcement Division, and is rolling out a new electronic records management system – but more resources and capacity will be needed.

We urge OPC's continued leadership both for the benefit of California's ocean habitats and marine species – and the human communities that depend upon and treasure them – and to continue to promote California's MPA network as a model for global MPA design and implementation. MPAs are increasingly viewed as a critical strategy to shelter ocean resources and to provide resilience in the face of changing ocean conditions. In 2020, parties to the Convention on Biological Diversity will gather in Beijing to consider global biodiversity targets, including proposals to expand global MPA targets and increase the effectiveness of these areas. California's MPA network – both in its design and its implementation – can serve as an important model to help shape these international commitments, thus playing a role in preserving ocean ecosystems beyond our state waters.

We urge OPC to continue its leadership role, with special attention to:

- Ensuring that OPC continues to invest resources in MPA management, with a focus on research and monitoring, outreach and education, enforcement and compliance, and policy and permitting;
- Supporting CDFW—both through investment of OPC-guided funds and through OPC's policy leadership—to ensure that the agency has adequate resources to manage and safeguard the MPA network;
- Improving MPA enforcement – Helping fund additional CDFW wardens, as well as improving monitoring technology will assist in deterring poaching and protecting MPA ecosystems;
- Habitat restoration – Marine and coastal habitats like kelp forests, eelgrass beds, and coastal wetlands, provide crucial habitats for fish and invertebrates. Supporting projects that restore these habitats will enhance the health and diversity of MPAs;
- Shellfish restoration – OPC flagged the need to counterbalance the effects of power plants using once-through cooling (OTC) technology. OTC power plants can have significant impacts on adjacent shellfish populations and it would be useful to direct funding to scientifically-based projects that seek to enhance affected shellfish populations;
- Invasive species eradication – Invasive species threaten the balance in MPA ecosystems, and dedicating OPC funding to eliminating these species will help foster healthy MPAs;
- Improving MPA water quality through upstream projects – Enhancing coastal water quality improves overall ecosystem health, supports healthy habitats, and species diversity and productivity. Projects like removing dams and other stream barriers,

restoring natural riparian habitat, improving circulation in wetlands and bays, and enhancing pollution controls will all improve coastal water quality.

3. **Ensuring Thriving and Sustainable Marine Fisheries**

California has one of the world's most productive marine ecosystems and a robust fishing industry. We appreciate OPC's support of science-based and collaborative management approaches, and we highlight here the management practices we have advocated for in other forums and that we hope OPC will keep in mind as it implements its strategic plan.

Regarding Objective 3.5, the Marine Life Management Act (MLMA) Master Plan is meant to guide CDFW in achieving the act's goals of conserving the marine environment in state waters and the sustainable use of state fisheries. Comments we have previously made regarding the MLMA Master Plan are also applicable to OPC's work, and we highlight the main points made in our letters[2]:

- Ecological Risk Analyses (ERAs) are crucial tools for identifying species and ecosystem risks. OPC should support CDFW in developing a clear timetable for completing ERAs and ensuring robust public participation in the process.
- We encourage the use of Management Strategy Evaluations (MSE) in identifying optimal management procedures for stocks managed by the state, particularly when evaluating how best to manage stocks for which little data is available and when climate change might be affecting the resource. Current staffing levels at CDFW do not provide sufficient capacity for use of MSE and OPC could support building capacity to use these quantitative management tools.
- Rebuilding overfished stocks is an essential part of sound management, and OPC should support rebuilding, including by assisting CDFW in: identifying reference points for key fisheries, regularly evaluating the status of stocks relative to those reference points using Enhanced Status Reports (ESRs), evaluating the status of data-limited stocks, and prioritizing the management of stocks in need of rebuilding.
- Climate change is already affecting California fisheries, and it must be accounted for when managing state fisheries. For example, researchers predict particularly dramatic latitudinal shifts in fish stocks along the West Coast of the U.S., and the state must take measures to monitor these changes and manage stocks accordingly. In addition, robust management strategies must be identified given uncertainties caused by climate change. OPC should support CDFW in incorporating climate change into its planning. The following are some of the strategies OPC could support:
    - Conducting climate vulnerability assessments for California stocks;
    - Integrating information gleaned from those assessments into the MLMA framework and prioritization processes;

[2] *See* Letter from Natural Resources Defense Council to California Fish & Game Commission, *Re: Comments on Draft Marine Life Management Act Master Plan* (April 18, 2018)(attached).

- Supporting dynamic management strategies (i.e., inclusion of ecosystem indicators into harvest control rules), and;
- Fostering economic and social resilience in the fishing industry (i.e., evaluating the feasibility of transferring fishing permits, gear switching potential, creating a fisheries insurance program).[3]

We also support OPC's objective of reducing marine life entanglement in fishing gear off California's coasts and supporting projects aimed at that goal (Objective 3.6). Entanglement in fishing gear can be deadly for whales, sea turtles, and other marine life.[4] Entanglements off the West Coast are on the rise,[5] and have included humpback whales, blue whales, and Pacific leatherback sea turtles. These entanglements are primarily caused by fixed gear vertical lines between the trap and the surface float, such as those found in Dungeness crab, spot prawn, and spiny lobster fisheries. Warming ocean temperatures, shifting food sources, and marine population dynamics have all contributed to an increase in co-occurrence between wildlife and fishing gear.

We ask that OPC add to its strategic plan a specific commitment to testing "ropeless" gear systems, with the goal of developing viable strategies to reduce entanglement. Ropeless fishing systems have been deployed for assorted marine operations, including by the Department of Defense and the oil and gas industry for over twenty years. As such, they are mature technologies with great promise in reducing entanglement risks. For ropeless gear to be successful, a number of carefully planned pilot tests and field trials need to be conducted. Initial trials of ropeless systems in the Dungeness crab fishery in the State of California were conducted in May 2018 by fishing and conservation members of the Dungeness Crab Fishing Gear Working Group.[6] Building on these efforts by supporting additional pilots and field trials of those systems in collaborating with fishermen, and other projects recommended by the Dungeness Crab Fishing Gear Working Group, will help pave the way for broader adoption of ropeless systems.

Further, the settlement in *Center for Biological Diversity v. California Department of Fish and Wildlife*, specifies that only ropeless fishing gear may be used in certain fishing districts

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[3] Letter from Heal the Bay, Natural Resources Defense Council, *et. al.* to California Department of Fish and Wildlife (October 10, 2017)(attached).

[4] *See, e.g.,* Michael Moore, *How we can all stop killing whales: a proposal to avoid whale entanglement in fishing gear*, ICES JOURNAL OF MARINE SCIENCE (2019); R.S. El-Mallakh, and M. Hartman, *The curious case of the missing face: Death of California sea lion by Dungeness crab trap*, INTERNATIONAL JOURNAL OF AQUATIC BIOLOGY, 6(4), pp.198-201 (2018); Kayla Hamelin, Michael James, *et. al.*, INCIDENTAL CAPTURE OF LEATHERBACK SEA TURTLES IN FIXED FISHING GEAR OFF ATLANTIC CANADA, AQUATIC CONSERVATION: MARINE AND FRESHWATER ECOSYSTEMS, 27(3), pp.631-642 (2017).

[5] *See* NOAA FISHERIES, *2017 West Coast Entanglement Summary, Figure 1* (May 2018), https://www.westcoast.fisheries.noaa.gov/publications/protected_species/marine_mammals/5.2.2018_wcr_2018_entanglement_report_508.pdf

[6] *Initial Trials Exploring Ropeless Fishing Technologies for the California Dungeness Crab Fishery: July 30, 2018 Update to the California Dungeness Crab Fishing Gear Working Group*, Compiled by Geoff Shester, Oceana; http://www.opc.ca.gov/webmaster/_media_library/2018/08/ropeless-trials-update7-30-18.pdf

after April 1, 2021 (until related applications and rulemakings are completed).[7] This impending closure underscores the importance of moving forward with additional testing of ropeless systems, which could allow more fishermen to remain on the water. In addition, there is the need to support the development of technologies to assist in the detection, enforcement, and data sharing of ropeless fishing systems to support regulators and enforcers and reduce potential gear conflicts.

While designing or awarding funds to a ropeless gear pilot project, we encourage OPC to keep several key principles in mind:

- A pilot project must have a clear plan as to how it will be carried out in partnership with the fishing community and set forth the parameters of those partnerships;
- It must allow for practical modifications to previously validated ropeless systems to improve efficiency and reduce costs for fishermen (i.e., improving efficiency of deployment, engineering adjustments to improve compatibility with specific fishing vessels, and assessing other potential economic benefits such as gear loss reduction);
- It must specify a detailed and robust methodology that describes the data that will be collected during the project and how it will be used to advance the viability of ropeless systems;
- It must have an adequate sample size and replication to ensure that the results of the project can be interpreted in a meaningful way;
- It must include components that focus on solutions to the gear conflict and enforcement challenges associated with ropeless fishing systems (i.e., developing electronic tracking systems that allow for gear detection and protect sensitive business information); and
- It must have a plan for collaboration and knowledge sharing with federal and state entities working on the issue, including, the National Marine Fisheries Service, and California Department of Fish and Wildlife.

There have been a number of successful pilot projects and field trials of ropeless fishing systems conducted off the U.S. East Coast and in Canada, which could provide useful models for any pilots sponsored by OPC.

In Canada, l'Association des Pêcheurs Profesionnels Crabiers Acadiens based in the Gulf of St. Lawrence is in the process of testing four different ropeless fishing systems and work to date has included a number of pilot tests, off-season at-sea trials, and in-class and at-sea fishermen training. This collaborative process with fishermen led to the redesign of one of the systems, improving both handling and efficiency.[8] The Coldwater Lobster Association has undertaken

[7] Stipulation and [Proposed] Order Staying Case and Terms of Agreement*, Center for Biological Diversity v. California Department of Fish and Wildlife, et. al.*, Case No. 3:17-cv-05685-MMC (Mar. 26, 2019), Dkt. No. 71; https://www.biologicaldiversity.org/campaigns/fisheries/pdfs/whale-entanglement-settlement-agreement.pdf

[8] M. Noël, l'Association des Pêcheurs Profesionnels Crabiers Acadiens, *Panel presentation at Seafood Expo North America. Sustainability in Crisis – The importance of science, industry & government in protecting right whales and fishing livelihoods* (Mar. 18, 2018); *see also*,

phased trials of one fishing system to date, that comprised 1-2 training days at-sea for each fisher followed by unsupervised sea days and, subsequently, coordinated multi-boat operations with three boats setting and hauling trawls in the same area. A mobile application developed for this purpose was used to aid fishermen in detecting where ropeless traps from each fishing boat had been deployed.[9] The Grand Manan Fishermen's Association is also in the process of testing two ropeless systems, with a specific focus on deepwater fishing in areas with fast tidal currents.[10] Pilot tests and field trials have also been conducted off the U.S. East Coast by the Massachusetts Lobstermen's Association[11] and the South Shore Lobster Fishermen's Association,[12] and plans are in place for a pilot with the offshore lobster fishery in summer 2019[13], among others. We recommend that trials of ropeless fishing systems in California build off the significant efforts already underway in order to expedite the commercial viability of ropeless fishing systems.

Finally, in addition to supporting ropeless gear pilot projects, it could also be useful to have OPC support in developing innovative economic strategies to support eventual gear transition, for example, allowing fishermen to access ropeless gear without bearing the full costs of ownership (i.e., state-owned gear that fishermen could rent on a time-limited basis).

4. **Protecting the Ocean and Encouraging Sustainability in the Blue Economy**

We commend OPC for its commitment to ensuring that marine renewable energy projects minimize impacts to the coastal and marine environment, recreation, and fishing communities (Objective 5.1); and for its sensitivity to working with stakeholders to maximize ocean protection and safeguard sensitive habitats, while developing sustainable energy sources. In these comments we would like to emphasize that OPC is well-positioned to advance the science needed to ensure environmentally responsible marine renewable energy development and to advocate for the highest level of marine protections as offshore energy developments proceed.

Marine renewable energy projects have great potential to provide clean energy, and as the state considers developing such projects, it must also ensure that they are sited to prioritize avoiding harmful impacts to marine ecosystems then developed with a full understanding of

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https://www.andersoncabotcenterforoceanlife.org/blog/scientists-regulators-industry-talk-right-whales-at-seafood-expo/

[9] M. Flagg, Desert Star Systems, LLC, *An 'endless season' of ropeless fishing trials (June-November 2018), Presentation at the Ropeless Consortium* (Nov. 6, 2018), https://ropeless.org/wp-content/uploads/sites/112/2018/11/Marco-Flagg-Endless-Season-of-Ropeless-Fishing-1.pdf

[10] *Id.*

[11] D. Casoni, Massachusetts Lobstermen's Association, CT Harry, IFAW, *Massachusetts Lobstermen's Association & IFAW working hard to preserve right whales. Presentation at the Ropeless Consortium*, (Nov. 6, 2018), https://ropeless.org/wp-content/uploads/sites/112/2018/11/10.-Casoni-Harry-Ropeless-Consortium-Presenatation-1.pdf

[12] M. Lane, South Shore Fishermen's Association, *Panel presentation at Seafood Expo North America. Sustainability in Crisis – The importance of science, industry & government in protecting right whales and fishing livelihoods* (Mar. 18, 2018); *see also,* https://www.andersoncabotcenterforoceanlife.org/blog/scientists-regulators-industry-talk-right-whales-at-seafood-expo/

[13] https://www.bycatch.org/news/new-award-evaluate-ropeless-fishing

their potential environmental impacts and with plans to monitor and mitigate any harmful impacts. We have previously commented on offshore energy proposals before OPC and other bodies, and highlight our recommendations again here:

- As we commented in our letter to the Bureau of Ocean Energy Management, on its Call for Information Regarding Commercial Leasing for Wind Power Development on the Outer Continental Shelf, offshore wind development can be developed responsibly, provided that projects are sited to avoid sensitive habitat, protect wildlife throughout the development process, and monitor and mitigate any impacts to wildlife and habitat throughout construction and operation.[14] Siting decisions must be made in a transparent manner, with full stakeholder engagement.[15]
- OPC should advance the science that is needed to guide siting decisions and fill existing data gaps. As an important first step, the data sets contained in the Data Basin Gateway should be fully analyzed, and at a minimum, the various data layers should be integrated into an environmental sensitivity layer that can be used to assist decision-making.[16] Additional studies are needed on potentially affected fish, marine mammal, and seabird species and habitats in the areas under consideration for leasing.[17]
- As we pointed out in our letter to OPC on the Proposition 84 Competitive Grant Program and offshore wind priorities, safeguarding our marine environment requires any support for renewable energy projects to be based on a precautionary and scientific approach.[18] In particular, it is essential to ensure that: available data (such as information in the Data Basin Gateway) is fully analyzed before siting projects, stakeholders are fully engaged through an inclusive and transparent process allowing full discussion of environmental concerns, and that initial projects start small and are scaled up gradually to allow monitoring and evaluation of the effects of renewable energy projects.[19]

5. **Strengthening Organizational Effectiveness**

We support OPC's goal of strengthening its organizational effectiveness, and in particular, we support its objective of integrating environmental justice and social equity into its conservation work. Marine and coastal protection are of interest to a diverse array of

[14] Letter of Natural Resources Defense Council, Environmental Defense Center, Surfrider Foundation, *et. al.* to Bureau of Ocean Energy Management, *Re: Comments on the Call for Information and Nominations for Commercial Leasing for Wind Power Development on the Outer Continental Shelf Offshore California* (January 28, 2019) at 2 (attached).
[15] *Id.* at 4.
[16] *Id.* at 36.
[17] *Id.* at 37-39.
[18] Letter from Audubon Society, Defenders of Wildlife, Natural Resources Defense Council, *et. al.* to Ocean Protection Council, *Re: California Ocean Protection Council Proposition 84 Competitive Grant Program and NGO Offshore Wind Priorities* (October 25, 2018); *see also,* Letter from Audubon Society, Natural Resources Defense Council, *et. al.* to California Energy Commission, *Re: Environmental Considerations and Goals for California Offshore Wind* (December 17, 2017)(attached).
[19] *Id.*

communities, and it is essential for OPC and other state agencies to keep the full range of stakeholder interests in mind and to ensure broad engagement in the regulatory process.

We appreciate your consideration of these comments. Should OPC require any additional resources or have any follow up questions, we can be reached with the contact information below.

Sincerely,

Irene Gutierrez
Senior Attorney
Natural Resources Defense Council
111 Sutter Street, 21st Fl.,
San Francisco, CA 94104
igutierrez@nrdc.org

Kashia Band of Pomo Indians
of the Stewarts Point Rancheria

August 12, 2019

To: Ocean Protection Council

From: The Kashia Band of Pomo Indians of the Stewarts Point Rancheria

Re: Ocean Protection Council Meeting August 14, 2019, Sacramento
Agenda Item 4. Discussion of Top Priorities to Inform OPC's Strategic Plan

Dear Council,

The Kashia Band of Pomo Indians of the Stewarts Point Rancheria respectfully submits the following comment on Agenda Item **4. Discussion of Top Priorities to Inform OPC's Strategic Plan**

As you well know, over the course of the last eight years, Northern California coastal communities have painstakingly watched as a "Perfect Storm" of environmental conditions has resulted in a near complete collapse of the Northern California red abalone (*Haliotis rufescens)* fishery.

In 2011, a rare and still unexplained "Harmful Algal Bloom" stressed red abalone populations, leading to massive mortalities along the Sonoma Coast. In 2013 an outbreak of "Sea star wasting disease" then decimated sea star populations. The sea stars, when absent from the ecosystem, failed to prey upon juvenile sea urchins, resulting in a population explosion and widespread "sea urchin barren" conditions that have decimated kelp forests. Persistent high surface water temperatures off the northern California coast have severely limited kelp re-growth and further stressed abalone populations. Kelp forests in Northern California are now estimated to be *93% smaller* than in previous years. As kelp is the primary food source for red abalone, diminished kelp beds have triggered starvation conditions for wild abalone.

In 2018, the California Fish & Game Commission closed the red abalone fishery by unanimous vote for the first time in history. Recent surveys indicate that North Coast wild red abalone remain in a state of starvation, with a lack of anticipated recovery in the population expected in the foreseeable future. What's more, coastal counties in Northern California are now experiencing dramatic declines in local tourism dollars ($24-$44M) driven by the closure of the red abalone fishery.

1420 Guerneville Road, Suite 1 • Santa Rosa, CA 95403
(707) 591-0580 • (707) 591-0583 Fax • email: tribalofc@stewartspoint.org

This is not the first time that we have seen dramatic declines in abalone populations in California. In 1997, based upon information indicating that white abalone (*Haliotis sorenseni*) had suffered a major decline in abundance, the National Oceanographic and Atmospheric Administration, through the National Marine Fisheries Service (NMFS) designated the white abalone as a "candidate species" (the first step toward official "endangered species" status) under the United States Endangered Species Act of 1973 (ESA) (16 U.S.C. 1531 *et seq.*). Four *years* later, in May 2001, white abalone were listed as the first federally endangered marine invertebrate under the ESA.

The ESA requires the NMFS to develop and implement recovery plans for the conservation and survival of threatened and endangered species under its jurisdiction. An additional *seven years later*, in 2008, ***eleven years after first recognizing that a serious problem existed***, the NMFS announced the availability of a Final Recovery Plan for white abalone. The NMFS' ultimate goal is to increase white abalone abundance to viable and self-sustaining levels such that the species can be down-listed to threatened status and eventually removed from the Endangered Species List. Dr. Kristin Aquillino of the Bodega Bay Marine Laboratory in Bodega California, spearheads these efforts.

We recognize and respect that it's OPC's mission to "ensure that California maintains healthy, resilient, and productive ocean and coastal ecosystems for the benefit of current and future generations" and that" the OPC is committed to basing its decisions and actions on the best available science, and to promoting the use of science among all entities involved in the management of ocean resources."

As a coastal Native American Tribe with a thousands-of-years-long history of reliance upon red abalone for not only sustenance, but also as a sacred animal, we implore you to not allow the plight of red abalone to follow that of its cousin, the white abalone, by prioritizing, ***now***, scientific research focusing on kelp bed ecosystems in general and red abalone in particular as well as the development of pilot projects leading to the restoration of the red abalone fishery, as it supports major cultural and economic activity in this region.

Respectively Submitted,

Dino Franklin
Chairman, Kashia Band of Pomo Indians of the Stewarts Point Rancheria

Sea Grant California
UNIVERSITY OF CALIFORNIA, SAN DIEGO CALIFORNIA SEA GRANT
9500 Gilman Drive, MC 0232, La Jolla, CA 92093-0232 858.534.4440 caseagrant.ucsd.edu

August 12, 2019

Mark Gold, Executive Director
California Ocean Protection Council

Dear Mark and Ocean Protection Council Members,

California Sea Grant is pleased to be a longstanding partner of the Ocean Protection Council and supports the strategic priorities for 2019-2024. California Sea Grant is a collaboration of the National Oceanic and Atmospheric Administration (NOAA), the State of California and universities across the state to create knowledge, products and services that benefit the economy, the environment and the citizens of California. Since 1973, our program, and sister program USC Sea Grant have served the state of California.

We urge the Council to maintain a broad view of these goals and take advantage of the many state and federal partners to help ensure that our state can respond appropriately and plan well to mitigate and adapt to the multiple stressors facing our coastal and marine ecosystems and communities.

California Sea Grant's strategic goals align closely with the priorities outlined by the Ocean Protection Council. Under our broad focus areas of Healthy Coastal and Marine Ecosystems, Resilient Coastal Communities, Sustainable Fisheries and Aquaculture, there are many areas of specific alignment, for example:

- Through funded research and in-house science, we work to improve understanding of coastal and marine ecosystems and the multiple stressors they face, including climate change related impacts, pollution, invasive species, harmful algal blooms, and fishing entanglement.
- The work of our funded researchers and extension specialists provides new insights on sea-level rise and climate adaptation.
- Our program brings nationwide expertise in aquaculture along with research funding to build sustainable aquaculture in the state and better understand the environmental and economic challenges and opportunities. Our research also provides important findings to guide fisheries management, from multiple perspectives including biological, economic, and social science.

California Sea Grant administers competitive research funding calls, provides professional science communication services, and conducts extension and outreach work that can bring science to diverse stakeholders including industries, communities, and agencies.

As a NOAA program, California Sea Grant is also uniquely placed to leverage and assist in partnerships with the federal government, particularly through our State Fellowship Program we are also connected directly to key state agencies and NOAA programs.

Sincerely,
Shauna Oh | California Sea Grant Director

AQUARIUM OF THE PACIFIC®
A non-profit institution

Public Comment on priorities for the OPC 2019-2024 Draft Strategic Plan
By Aquarium of the Pacific
August 12, 2019

We greatly appreciate the California Ocean Protection Council's (OPC) efforts to leverage research and collaboration to support a healthy ocean. We strongly encourage the OPC to prioritize Goal 1: ***Safeguard coastal and marine ecosystems and communities in the face of climate change***. In order to accomplish this, it will have to reconsider Goal 5 ***Protect the ocean and encourage sustainability in the blue economy***, which should read, ***Facilitate a sustainable blue economy that supports ocean health.*** These changes would enable the OPC to achieve Goal 1 by supporting activities and ***bold, science-based innovations*** that reduce greenhouse gas emissions and buy coastal communities some time in the face of sea level rise (e.g. development of living shorelines).

> *The mounting challenges to California's coast and ocean represent an existential threat both here and globally, so* ***the time for bold, science-based innovation is now****.*

This is one of the last lines in the Strategic Plan document, but it should be one of the guiding statements for the OPC's Strategic Plan. The impacts from global activities, including climate change, ocean acidification, and sea level rise will affect the health of California's coast and ocean. Meeting the fundamental food, water, and energy needs of the growing population in a rapidly changing climate is putting immense pressure on the ocean and land systems. While land-based ecosystems bear the brunt of the impact from production, the impacts don't stop at the shoreline. The land and sea are connected. Terrestrial actions can result in irreparable impacts to the shared commodity that is our global ocean. These impacts are the product of cumulative global consumption, which California's 40 million citizens and fifth largest economy in the world contribute to.

California relies on imports to fulfill its food and energy demands and hundreds of thousands of Californians (mostly in impoverished areas) don't have access to a consistent supply of safe drinking water. We have an ethical responsibility to ensure all of our citizens have consistent access to a safe and secure source of food, water, and energy and to take on some of our consumption costs in our own backyard. Moving some of the food, energy, and water production to the ocean can reduce the GHG emissions associated with imports and reduce pressure on land and fresh water resources. Supporting a local blue economy can provide assurances that these activities are done responsibly, leveraging California's strong environmental ethic to ensure that these practices are informed by the best available science, use appropriate technologies, and are adequately regulated to meet the foundational needs of

the growing population in a changing climate without compromising the health of the ocean. **This is where the bold, science-based innovations will play an important role in "protecting" or conserving oceans and coasts in California and around the world. It is one of the most important roles California should play to support a healthy ocean.**

Marine aquaculture is an opportunity to pilot a sustainable blue economy initiative that benefits ocean health, contributes to the reduction of local and global greenhouse gas (GHG) emissions, and provides economic support for California residents. There's growing scientific evidence that farmed seaweed can reduce greenhouse gases by drawing CO2 out of the atmosphere and reducing methane emissions from cows if used as a feed additive. It can also alleviate some of the impacts of ocean acidification on coastal ecosystems. Farming bivalves (oysters, clams, mussels) can improve water quality, stabilize shorelines, and provide habitat. Restoring native oyster reefs (and seagrass and salt marshes) can also provide some buffer to protect coastal communities from storm surges. Given that most Americans love meat (a major contributor to GHG emissions), offshore farmed finfish can play an important role in complementing our well-managed wild-capture fisheries to provide a more climate friendly source of meat. It can reduce GHG emissions associated with seafood imports and support a more climate resilient food supply that uses less land and fresh water.

A sustainable blue economy can provide ***the bold, science-based innovations*** we need to reduce California's GHG emissions, support activities that remove greenhouse gases from the atmosphere, protect shorelines, reduce the impacts of ocean acidification, and improve climate resilience—all while increasing local supplies of food, water, and energy with stronger assurances that they are produced responsibly and supporting local economies. ***We strongly urge the OPC to prioritize support for the development of a sustainable blue economy to help achieve its goal to "Safeguard coastal and marine ecosystems and communities in the face of climate change***."

Sincerely,

Jerry R. Schubel, PhD
President and CEO
Aquarium of the Pacific

Kimberly Thompson
Director, Seafood for the Future
Aquarium of the Pacific

From:	Rue
To:	CNRA COPC Public
Subject:	Ocean protection priorities
Date:	Monday, July 29, 2019 11:16:46 AM
Attachments:	image.png image.png

Certainly not the only priority, but a very big one … salt water intrusion into groundwater seems to be missing from many equations, as well. The list is long, sadly.

Thanks for your work on behalf of our oceans and coast.
Rue Furch

The San Diego Union-Tribune

Column:??Climate change and California???s coming insurance crisis

Coastal bluffs collapsed underneath homes in Pacifica during storms in 2016.

It???s not just wildfires, but sea-level rise will make insurance more costly, if not impossible to get in some coastal areas

By??MICHAEL SMOLENS, COLUMNIST?? JULY 28, 2019

California is so concerned over the future cost and availability of insurance it???s calling in the United Nations for help.??Recent reports detail how homeowner insurance policies in regions prone to wildfire ??? like San Diego???s rural areas ??? are being canceled or becoming significantly more expensive.

Developments planned for high-risk fire zones are not only being challenged politically and legally over

whether they diminish the quality of life for people living nearby, but also over public safety and climate change concerns.

Eventually, homeowners in certain coastal areas are certain to have a similar, if more slow-moving, experience as sea-level rise increases flooding and erosion, making their dwellings a riskier bet for insurers. Some residents on unstable bluffs have for years faced insurance issues, in addition to the challenge of pursuing public or private efforts to shore up the cliffs.

Tens of thousands of beachfront homes across California face the risk of chronic flooding or worse, according to projections. It may be 50 to 100 years before it gets that bad, but property values are likely to be affected along with insurance.?? This will extend beyond homeowners to businesses and, to varying degrees, governments.

At the root of the insurance challenge is climate change, which many experts say is exacerbating wildfires and flooding and making storms more destructive. Insurance companies, like governments, are increasingly stressed trying to grapple with that.????On Tuesday, California Insurance Commissioner Richardo Lara said his agency??will be working??with insurers and officials of the U.N. Principles for Sustainable Insurance Initiative on a yearlong effort to address the state???s climate risks.

?????We have a historic opportunity to utilize insurance markets to protect Californians from the threat of climate change, including rising sea levels, extreme heat and wildfires,??? Lara said in a statement. ???Working with the United Nations, we can keep California at the forefront of reducing risks while promoting sustainable investments.???

The U.N. initiative puts ???sustainability?????at the heart of risk management. Establishing sustainable communities generally relies on development that does not deplete natural resources. Projects that have a carbon-neutral footprint ??? and thus contribute little or nothing to climate change ??? are often credited for heading in this direction.

But achieving sustainability has a lot to do with where things are built, and that has long been a volatile issue in California ??? now as much as ever.

The collaboration was announced at a roundtable discussion co-hosted by the UCLA School of Law and UC Berkeley School of Law, though statements following the session didn???t get into specifics. But while the partnership likely will explore what can be done to combat climate change, the risk equation is sure to be a lot about location, location, location in the coming decades.

Some of California???s most high-risk areas in the decades to come ??? the beautiful rolling hills inland and sparkling coast ??? are among the most desirable places to live. Stopping people from building there, let alone eventually moving them out, may be impossible.

Recent history suggests drafting state policy on this will be difficult. Legislation designed to force local governments to change zoning policies to allow denser residential development to alleviate a housing crunch faced a strong backlash and was defeated. Taking wide swaths of the state out of the development picture would be even more controversial.

If current and future residents are unable to obtain insurance, pressure will grow for the government to step in. Already, an increasing number of people are turning to the state-controlled insurance of last resort ??? Fair Access to Insurance Requirements, or FAIR ??? where the policies are limited and can be more expensive than typical coverage. Insurance companies are required to pay into the FAIR fund.

That doesn???t seem sustainable, especially when insurance companies are pulling out of entire areas at high risk of wildfire. Insurers are fully aware that??most of California???s worst wildfires??have burned since 2000 and that the trend is expected continue.

???There are a lot of companies that are non-renewing entire zip codes,??? Joel Rahm, a San Diego-based agent with Wateridge Insurance Services, told the??Union-Tribune???s Joshua Emerson Smith.

The Zillow real estate marketing firm says nearly 500,000 California homes worth a combined $268 billion are at serious risk from wildfire, the??Sacramento Bee??reported Friday.????Eventually, perhaps, if insurance is unavailable in certain areas, people won???t build or buy there, unless government subsidizes the premium ??? which goes on the taxpayers??? tab.

Some residents in the backcountry who are scrambling for insurance are suggesting the state should get more involved now.?? Such panic is not found along the coast because the big impacts of sea-level rise are still years in the future.?? ???In my world right now, there???s not a lot of discussion of the coast,??? said Brian Crumbaker, an independent agent based in Carlsbad with Brightway Insurance.

He predicted anxiety will build as the sea creeps toward areas projected to be regularly flooded or submerged. But he said residents and governments should be giving that more consideration now ??? particularly in determining where not to build.?? ???We tend not to care about stuff until it happens,??? he said. ???It???s almost like the wildfires came out of nowhere and that???s just not the case.???

Seaside cities are facing pressure from the California Coastal Commission to come up with plans to deal with the rising ocean. The plans themselves are controversial because merely admitting that a street or neighborhood is likely to be regularly flooded, or worse, in the decades to come raises concerns about plummeting property values.

Some advocate a policy of ???managed retreat??? ??? moving existing development away from the shore over time ??? but that, too, predictably has run into resistance.?? The cost and availability of insurance likely will have a role in how all that plays out, as it will in wildfire country.

The world???s largest reinsurance firm, Munich Re, generated a lot of attention when it concluded that global warming made a ???significant contribution??? to the more than $20 billion in losses last year from California wildfires. More than??100 people died??as a result of the fires ??? 85 of them lost in the??Camp Fire??that devastated the Northern California town of Paradise.

???No insurer has linked wildfires to climate change before,??? according to??The Guardian, ??? although a??Lloyd???s report??into Superstorm Sandy in 2014 found that global warming-linked sea level rises had increased surge losses around Manhattan by 30%.???

Five years ago, the chairman of Lloyd???s of London wrote an opinion piece putting the industry on notice: ???Insurers must adapt to climate change.???

BETTY T. YEE
California State Controller

August 12, 2019

Mark Gold, Executive Director
California Ocean Protection Council
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

SUBJECT: Strategic Plan Priorities

Dear Mr. Gold:

Thank you for convening a conversation on the Ocean Protection Council's (Council) priorities and the direction of the strategic plan. Having served on the Council for two years, I recognize the potential for this body to drive visionary state coastal policies.

I recommend prioritizing the following issues, while maintaining a cohesive policy and funding strategy:

Blue Economy

The blue economy is a top priority for me. It presents an opportunity to simultaneously protect the state's environmental legacy, encourage economic development and innovation, and provide quality work and life to coastal residents. The blue economy refers to a comprehensive view of the coastal economy that looks beyond a narrow scope of commercial activity – to one that encompasses emerging industries, inland economies, and partnerships that balance resource health and use. We must include an expansive definition of the blue economy in the strategic plan. The blue economy captures not only tourism, recreation, fishing, and offshore oil extraction, but also education and workforce training, scientific research, new sustainable technologies, offshore renewable energy, aquaculture, and marine biotechnology. (For detailed comments, please refer to my June 6 letter, *Strategic Plan Consideration of the Blue Economy.*)

If we can successfully shift our understanding of the blue economy and welcome new kinds of ocean uses, we can generate positive ocean outcomes that could not be attained by any other approach. Failing to engage with our ports, industry groups, and other blue economy stakeholders will result in a critical missed opportunity to improve ocean conservation, discover sustainable technologies, create meaningful work for disadvantaged communities, and further the scientific understanding of our oceans. Unfortunately, we are not currently realizing the potential of key stakeholders that could be contributing to our ocean protection efforts.

For example, there is a burgeoning movement to support small sustainable aquaculture farms, including shellfish and seaweed. The farms themselves provide an array of benefits:

300 Capitol Mall, Suite 1850, Sacramento, CA 95814 P.O. Box 942850, Sacramento, CA 94250 Fax: (916) 322-4404
www.sco.ca.gov

environmental (improved water quality and ecosystem restoration); climate (carbon and nitrogen sequestration); and economic (sustainable business and workforce development). In addition, the products of these farms can replace resource-intensive foods of conventional agriculture, or reduce greenhouse gas emissions via methane reductions from cattle consumption. Bureaucracy is the barrier to sustainable aquaculture expansion. Whereas other states have streamlined permits, Californians face a multiagency permitting process that may take years and hundreds of thousands of dollars in consultant fees. The Council is in a prime position to help resolve these regulatory barriers, while upholding the state's coastal priorities.

Similarly, the state has stunted any attempts at offshore wind energy, despite clear climate benefits. According to the August 2019 Public Policy Institute of California statewide survey, "An overwhelming majority of Californians (72 percent) support allowing wind power and wave energy projects off the California coast. A similar share of residents (73 percent) held this view in a 2017 PPIC survey." State permitting should not be a barrier to technological advancement, especially with the clear support of Californians. The Council should lead these initiatives that provide a multitude of benefits we cannot afford to miss.

Recommendation 1: Commit to supporting blue economy pilot projects that promote innovation and explore the benefits our oceans have to offer. The Council should support pilots in 2020, such as streamlined aquaculture permitting or expanded offshore wind energy.

Recommendation 2: Adopt a blue economy policy in 2020 that defines blue economy uses, identifies principles for state government action, and incorporates an implementation plan.

Sea-Level Rise

Climate change is a reality facing our state. It affects all sectors and policy areas. This is especially true for our coastal agencies and local governments, particularly on the topic of sea-level rise. We already experience the impacts of rising seas, with extensive flooding during storms, periodic tidal flooding, and rapid coastal erosion. Under an extreme scenario with rapid ice sheet loss on Antarctica, California could experience sea-level rise above two inches per year by the end of the century (with potential total sea-level rise exceeding 10 feet).

The state has begun to respond to specific elements of sea-level rise. For example, the California Coastal Commission (CCC) has issued Sea-Level Rise Policy Guidance, which provides support to local coastal programs and coastal development permits. In addition, pursuant to AB 691 (2013), the State Lands Commission (SLC) has collected sea-level rise assessments from grantees of public trust lands with annual revenues over $250,000. The SLC is working with a consultant to analyze local economic valuation methodologies and compile a statewide summary of sea-level rise vulnerabilities. This is the first study required by the legislature and its results should provide assistance to the ports in addressing sea level rise.

While these efforts are critical, leadership is needed to provide a coordinated policy response. The Council should provide a general sea-level rise framework for agencies and localities to follow. The Council should advise the state where to prioritize action, based on an economic

assessment of likely damage, critical infrastructure needs, and the time available to plan before adverse community impacts. A clear direction is important not only for state agencies, but for our local government partners. The state should involve local communities in this process and consider the many types of activities across our long and varied coast. Localities are facing difficult decisions, and more research and clarity are needed for the complicated issues that cannot be resolved by "managed retreat" alone.

Recommendation 3: Adopt a sea-level rise policy in 2020 regarding the maintenance of critical infrastructure, such as ports, roads, and sewer systems. This policy should identify the analysis communities need to do and provide a framework for evaluating costs. This work should supplement the SLC work on ports, across the entire state.

Recommendation 4: Support a regional pilot project on Humboldt Bay, which is experiencing sea-level rise at twice the rate of the rest of the state. Funding is needed to help the community move past surveys and analysis to implementation of adaptation strategies. This pilot can demonstrate best practices in impacted areas.

Environmental Justice

Environmental justice must be an integral part of our work; everything we do should be done through this lens. In California, environmental justice is defined as the fair treatment of people of all races, cultures, and income with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies. These efforts help ensure equitable access to clean, healthy, and accessible coastal environments for communities that have been disproportionately overburdened by pollution or other harm. The monetary, aesthetic, and other benefits that the coast provides must be inclusive for all, particularly those communities that have historically been excluded, marginalized, or harmed by coastal activity.

In the past few years, we have seen substantial progress on coastal environmental justice. Legislation since 1999 has culminated in the adoption of detailed environmental justice policies by the SLC and the CCC. I am proud of the SLC goal that "past environmental justices will not define California's future and... that all communities equitably share in the environmental benefits and burdens resulting from its decisions." I applaud CCC's emphasis on not only inclusive outcomes, but also inclusive internal processes: "The Commission recognizes that all aspects of our mission are best advanced with the participation and leadership of people from diverse backgrounds, cultures, races, colors, religions, national origin, ethnic groups, ages, incomes levels, disability status, sexual orientation, and gender identity."

Environmental justice is an area that we should prioritize, with an approach specific to the overarching role of this Council. In particular, we should ensure representation of the environmental justice community in our decision-making processes. The Council should carefully consider how we can improve outreach and stakeholder participation, by actively engaging community groups and meaningfully incorporating their feedback into our work.

Recommendation 5: Adopt a robust environmental justice policy by July 1, 2020. This plan should include a detailed implementation plan with specific actions, similar to those recently adopted by our state agency partners.

Overarching Policy and Funding Strategy

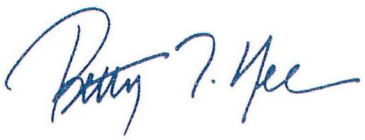
Across these priority areas is a role for the Council to lead the state's ocean protection efforts. The Council has an opportunity to coordinate efforts and guide us towards big picture, long-term goals. We are uniquely positioned to set visionary policies for the state, and should avoid a more piecemeal or "weedy" approach. To this end, our funding programs and award decisions should follow a clear and comprehensive strategy. Grant programs should directly support priorities in the strategic plan, and applications should be reviewed accordingly. Our programs should not overlap with, or fill funding gaps for, similar conservation programs.

As part of this visionary strategy, we must appropriately balance statewide priorities. We should consider whether our current approach adequately weighs the human impacts of our work against environmental protection. For example, I suggest that more of our attention be focused on water quality and pollution, rather than ecosystem impacts alone.

In general, more attention should be given to policy initiatives and projects than on small grant programs. The Council can most contribute to our coastal protection efforts in projects that coordinate across entities. I take ease knowing that the Council has a strong foundation in sound science to guide these initiatives.

I appreciate your commitment to ambitious goals in a truly strategic plan. Thank you for your consideration of the priorities I have discussed above. I look forward to working together and continuing to define our role in ocean protection.

Sincerely,



BETTY T. YEE

cc: Wade Crowfoot, Secretary, Natural Resources Agency
Jared Blumenfeld, Secretary, Environmental Protection Agency
The Honorable Eleni Kounalakis, Lieutenant Governor
The Honorable Ben Allen, State Senator
The Honorable Mark Stone, State Assemblymember
Michael Brown, Public Member
Jordan Diamond, Public Member
Jenn Eckerle, Deputy Director, Ocean Protection Council
Jennifer Lucchesi, Executive Officer, State Lands Commission
John Ainsworth, Executive Director, Coastal Commission

From:	CNRA COPC Public
To:	COPC Public Distro List
Subject:	FW: Comments on Kelp Resilience
Date:	Wednesday, August 14, 2019 6:49:22 AM

From: Sheila Semans
Sent: Wednesday, August 14, 2019 6:49:15 AM (UTC-08:00) Pacific Time (US & Canada)
To: CNRA COPC Public
Subject: Comments on Kelp Resilience

To Whom It May Concern:

I'd like to submit comments on the 2 part plan to address the kelp crisis on the north coast. Through partnerships with CDFW, UC Davis, the Gulf of the Farallones NMS, the Nature Conservancy, and commercial urchin divers, and many others, the Noyo Center for Marine Science has helped build a highly collaborative conservation program, assembled many leading scientists (including OPC) to create the kelp recovery plan, created our first 3 kelp oasis zones in Mendocino (with commercial divers removing 1.2mill urchin in our pilot year), engaged a team of citizen scientists for dockside sampling, and cultivated a partnership with Urchinomics to turn these empty urchin shells into a highly valued seafood product that would in turn bring proceeds back to the recovery effort with the hope of making it sustainable. All this has been accomplished largely with local funds.

As for the OPC proposal, getting the kelp aerial flyovers is a high priority for documentation, and TNC and the Sanctuary Foundation have been taking this on, and I am happy to hear there is collaboration with OPC developing there. As for the second part, CDFW has already done a trial testing smashing vs. culling urchin and made the recommendation that because there are still viable gonad in these urchin, we should not be smashing. We do a gonad index once a month for each oasis zone and CDFW ecosystem surveys from last year showed a strong spawning event. Our partnership has data on all of this and therefore feel this is not a priority.

Because bull kelp is an annual species there is a real urgency to do something asap to turn this crisis around. Here are our priorities:

- Maintain existing oasis zones (Caspar, Noyo and Albion Bays) and expand into new areas
- Fund the CDFW annual ecosystem surveys that were previously funded by ab license fees- a 15 year long-term data set.
- Fund a coordinator position to work with the CDFW (who license divers for this program), commercial divers (clearing oasis zones), processors (where catch is brought in), citizen scientists meeting the commercial boats, and coordinating the Urchinomics re: collections for the raceways (currently we have a trial being conducted at Bodega Marine Lab)
- Education and outreach to the effected communities. Noyo Center has opened a marine science center in downtown Fort Bragg primarily to tell this story and educate people on larger climate related issues. We have built a 360 geodesic dome to show the survey

transects, the commercial divers collecting urchin, and the urchin barrens v kelp forest ecosystems.

- Conduct critical research on urchin/kelp dynamics, including putting instrumentation in each oasis zones and analyzing long term oceanographic data in relationship to the few persistent kelp patches. We need to know more about spore dispersal and if urchin are preying on spores as they scour rocks for food (we now see over 65% bare rock in Mendocino).
- Work with CDFW to develop a purple urchin fishery; facilitate the commercial production of purple urchins.
- Develop abalone recruitment trials. We are seeing red abalone decline rapidly, with little reason for optimism. We've been discussing a trial to fatten the abs, much like the urchin, with the Urchinomics highly nutritious kelp feed, spawn them at Bodega, work with school kids and citizen scientists here to grow the juveniles here to then outplant them in the oasis zones. Early conversations with the Tribes has indicated interest in partnering on this.

Please consider revising OPC's kelp resiliency plan to collaborate more with the KELPRR priorities.. Thank you for your consideration and we look forward to working more with you.

Sheila Semans
Executive Director
Noyo Center for Marine Science
PO Box 1321, FB CA 95437
155C Cypress Street
(707) 733-NOYO

www.noyocenter.org

From:	CNRA COPC Public
To:	COPC Public Distro List
Subject:	FW: Please Prioritize Border Pollution in the Tijuana River Valley and Pacific Ocean
Date:	Wednesday, August 14, 2019 12:15:08 AM

From: Gabriela Torres
Sent: Wednesday, August 14, 2019 12:14:27 AM (UTC-08:00) Pacific Time (US & Canada)
To: CNRA COPC Public
Subject: Please Prioritize Border Pollution in the Tijuana River Valley and Pacific Ocean

Dear Ocean Protection Council,

I am writing on behalf of the Surfrider Foundation San Diego.

I am the Policy Coordinator managing our work with respect to the border pollution problem that is plaguing South San Diego County. Millions of plastic bottles travel through the Tijuana River each year and end up in the Pacific Ocean. Millions and millions of gallons of untreated raw sewage close local beaches. The ocean water has too much fecal bacteria to safely swim. San Diego's southern most beach has been closed almost every single day in 2019 because of fecal bacteria.

Please prioritize this very important issue. We need your help and leadership.

Gabriela M. Torres

--
Gabriela M. Torres I Policy Coordinator I Surfrider Foundation San Diego
M: 619.757.0556 I E: gabriela@surfridersd.org

From:	CNRA COPC Public
To:	COPC Public Distro List
Subject:	FW: PRIORITIZE BORDER CONTAMINATION CAUSING ENVIRONMENTAL HARM
Date:	Wednesday, August 14, 2019 1:56:43 AM

From: Miriam Iosupovici
Sent: Wednesday, August 14, 2019 1:56:24 AM (UTC-08:00) Pacific Time (US & Canada)
To: CNRA COPC Public
Subject: PRIORITIZE BORDER CONTAMINATION CAUSING ENVIRONMENTAL HARM

Please prioritize the environmental harm occurring in South San Diego County. We residents know the sewage and plastics in the Tijuana River must be a priority.

The sewage and plastics are health and pollution risks to our citizens and to the Border Patrol, as you know. This problem has gone on too long, eluding solution and resulting in endless meetings. We cannot wait for Mexico to act when it is our citizens that are being harmed again and again.

Thank you,

Miriam L. IOSUPOVICI
1320 Seacoast Dr, Unit L
Imperial Beach, CA 91932-3165
619-942-9716

From: CNRA COPC Public
To: COPC Public Distro List
Subject: FW: Public comment
Date: Wednesday, August 14, 2019 8:28:55 AM

From: Shannon Ratliff
Sent: Wednesday, August 14, 2019 7:49:09 AM (UTC-08:00) Pacific Time (US & Canada)
To: CNRA COPC Public
Subject: Public comment

As a resident of Imperial Beach I would urge you to prioritize the issues facing south San Diego. The water contamination through sewage and plastics flow is an immediate public health crisis as well as the obvious damage to the ocean and marine life. I believe we've yet to fully appreciate the damage that this ongoing dumping is causing. Immediate action needs to be taken and I am asking that you place this at the top of your priority list. Thank you,

Shannon Ratliff
Imperial Beach, CA

From:	CNRA COPC Public
To:	COPC Public Distro List
Subject:	FW: Tijuana River Valley Contamination
Date:	Wednesday, August 14, 2019 6:46:58 AM

From: Steven Case
Sent: Wednesday, August 14, 2019 6:46:50 AM (UTC-08:00) Pacific Time (US & Canada)
To: CNRA COPC Public
Subject: Tijuana River Valley Contamination

Hello, I am a resident of Imperial Beach, CA. Just north of the US Mexico Border in which there is a CRISIS, but not of the humanitarian kind, but rather an environmental kind.

Everyday, toxins, plastics, and sewage race across our natural border on its way to the Pacific Ocean. Check it out: TRASHED: The Tijuana River Valley Pollution Crisis

TRASHED: The Tijuana River Valley Pollution Crisis

Both sides of the border are dealing with pollution from the Tijuana River Valley where thousands of tires and p...

Please help

Chip Case

Imperial Beach

chippadarippa@yahoo.com

From:	CNRA COPC Public
To:	COPC Public Distro List
Subject:	FW: Pollution in the Tijuana River Valley and Pacific Ocean at Imperial Beach and Coronado
Date:	Wednesday, August 14, 2019 12:09:33 PM

From: William Bay
Sent: Wednesday, August 14, 2019 12:09:26 PM (UTC-08:00) Pacific Time (US & Canada)
To: CNRA COPC Public
Subject: Pollution in the Tijuana River Valley and Pacific Ocean at Imperial Beach and Coronado

I hope this reaches you in time for public comment.
As I'm sure you're well aware, the cross border sewage issue has been something we've lived with for decades. However, in more recent years, it's moved from just an issue into a full blown crisis.
In the past, there has only been bacteria, and untreated sewage to deal with during winter years.

But increased population in Tijuana, unregulated manufacturing, and a combined sewer/stormwater system that flows unchecked directly into the Tijuana River Estuary, and out into the ocean has now a year around issue, and some sections of our beach do actually remain closed most of the year.
This severely impacts Imperial Beach in multiple ways, public health, tourism revenue, quality of life, etc.
This also has a great impact on Coronado, and the northern beaches of Tijuana as well (although, the citizens are never notified when water conditions fail testing leading to greater public health issues).

Testing has been done to demonstrate what is actually in the water. Benzidine, Arsenic, Hexavalent Chromium (in addition to the bacteria and coliform we already knew about) have all been found in staggering concentrations.
The Border Patrol conducted one of the most thorough water quality reports ever performed to discover what is in our actual water. They have removed it from their website (I believe this is due to the ongoing lawsuit against the IBWC, and the studies ability to implicate the IBWC).
I have a copy of the full study here:
https://www.dropbox.com/s/av5cj6ga4je9lkp/BorderPatrolWaterQualityReport.pdf?dl=0

And I have an art project based on this water quality report, and the impact each of the chemicals, heavy metals, agricultural herbicides, and bacteria, called Parts Per Million.
It's a series of 28 photos taken at the river mouth of the Tijuana River. One photo for each of the contaminates that exceed the EPAs requirements. That can be viewed here:
https://williambay.com/parts-per-million/
I urge you to focus on Tijuana, Imperial Beach, and Coronado, and this crisis we are experiencing.
The EPA and NADBANK, have proposed some ideas of what *could* be done. But at this point, it's still just ideas and talk, and most are inadequate. Something *must* be done.

Thank you for your time.
William Bay

William Bay
619.813.1919
William Bay Photographic Arts
Fine Art | Photojournalism
https://williambay.com

Flaunt Your Site
Chief Flauntrepreneur
https://flauntyoursite.com

Sent via email to COPCpublic@resources.ca.gov

August 14, 2019

California Ocean Protection Council
1416 9th Street, Suite 1311
Sacramento, CA 95814

Re: Suggested Goal for Ocean Protection Council's Priorities

For over fifty years, Newport Bay Conservancy (NBC) has led efforts to protect and preserve Upper Newport Bay – one of the most valuable natural resources in Southern California that provides vital habitat for migratory birds, hatcheries for marine fisheries, residence to a number of listed native species, and educational opportunities that serve diverse communities in central Orange County.

NBC organizes community-based native habitat and trail restoration, interpretive land and water tours, and other service activities to involve the public and local businesses in the stewardship of the Bay. We also act as a liaison with the Bay's landowners, California Department of Fish and Wildlife, County of Orange, and the City of Newport Beach, to plan and implement restoration projects. Recently, NBC has secured management responsibilities of a 5-acre mitigation area in Big Canyon Nature Park. Additionally, NBC has secured three major grants to design and restore 50 acres of riparian and wetlands areas in Big Canyon.

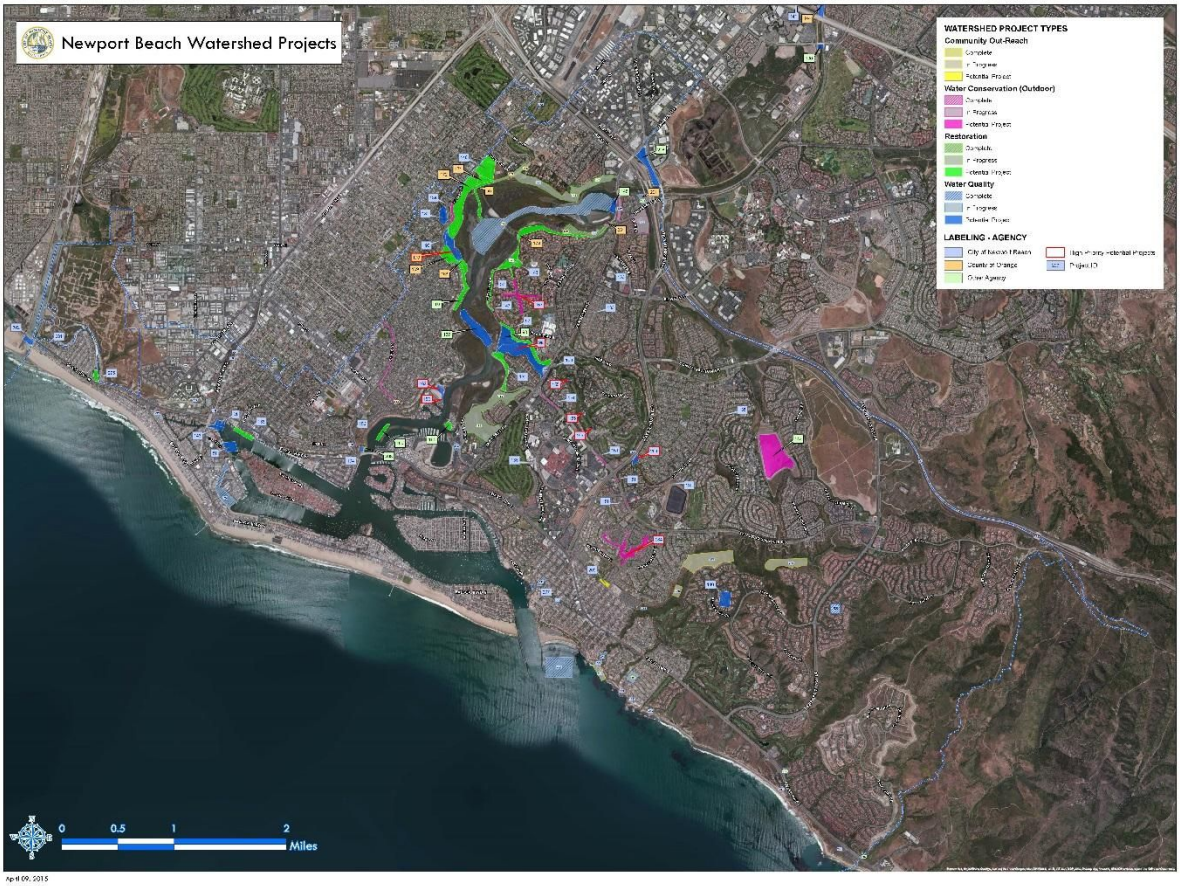
NBC launched planning for a 20-year program to restore Upper Newport Bay to an *ultimate* restoration condition. Figure 1 identifies proposed projects. This comprehensive planning effort includes:

- **Upland Restoration Program:** This program includes 25 projects along the periphery of the bay to stabilize slopes, remove invasive plants, remove illegal trails, rehabilitate walking trails, plant coastal sage and cactus scrub, refurbish wetland areas, and create bird-watching lookouts.

- **Subtidal Water Quality Improvement Program:** This program aims to improve fish habitats in Upper Bay by increasing the extent of eelgrass, transplanting native oysters to enhance water quality and implementing a major program (Trash Wheel, Santa Ana-Delhi full capture diversion project, harbor water skimmers, and comprehensive program to install full capture catch basin inserts) to remove all liter entering the bay.

- **Wetland and Intertidal Habitat Enhancement Program:** There are opportunities around the bay to modify existing elevations to increase intertidal area and sandy beach areas including creating transition areas to allow for projected sea level rise. The limits of this program would extend up San Diego Creek and into a tributary creek, Bonita Canyon.

Figure 1: Upper Newport Bay Projects: 1 - Watershed Restoration, 2 - Water Conservation, 3 - Water Quality and 4 - Community Outreach Projects.



We believe that effective integration and implementation of these programs and individual multi-benefit projects require:

- A better understanding of the ecological science of this coastal estuary, and
- Better planning that actively looks for the linkages and synergies to other watershed activities to support the long-term health of the hydrologic system as defined by ultimate vision for the bay.
- A watershed management team ideally composed of planning, biological, ecological, engineering, computer science, economic and regulatory disciplines.

This type of planning and program implementation is ecosystem-based, as it looks to see how each proposed project aligns with the larger scheme of a healthy and sustainable hydrologic system. Integration planning for each project will require innovative thinking to first identify relationships with other existing or potential watershed resources, and then to formulate practical ideas for creating synergies among these projects.

We offer the following suggestion for a new goal that reflects NBC's growing understanding of the requirements for implementing a broad program of successful restoration and preservation projects to directly enhance the habitats in our coastal estuary.

Proposed Goal: Foster effective, ecosystem-based integration planning and implementation to restore of coastal estuaries to promote long term sustainability of coastal ecosystems and fisheries.

1. Sub-goal: Actively work with resource agencies and universities to gain a deeper understanding of hydrologic system and ecosystem and how these systems inform restoration design of coastal habitats.
2. Sub-goal: Promote innovative thinking for effective ecosystem integration that draws upon the expertise of planning, biological, ecological, engineering, computer science, economic and regulatory disciplines.
3. Sub-goal: Leverage available funding resources to build upon programs and efforts within protected coastal ecosystems that are in alignment with OPC's principals.
4. Sub-goal: Support data sharing and other regional integrated planning efforts for estuary protection and restoration program.

NBC's principals align with the Ocean Protection Council, and we look to OPC for guidance on our ambitious, yet necessary goal to restore Upper Newport Bay. We think there are promising opportunities as we are already working with top individuals in local resource agencies, universities and colleges, other environmental NGO's, consultants, and an enthusiastic group of community volunteers. And we have gained the confidence of grant funding agencies that have supported us on previous endeavors. We are especially proud of our alliance with local school districts to sponsor outreach programs and educational field trips to thousands of grade and high school students to Bay. We think now is the opportunity to move aggressively to fully restore Upper Bay with the next generation; it is the best way to show how essential a healthy environment is to our survival.

Sincerely,

Randall English
Board Chair
Newport Bay Conservancy