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Cc: [Jim Curland](mailto:Jim.Curland@ccc.ca.gov)
Subject: Re: Comments on Ocean Protection Council Draft Strategic Action Plan 2012-2017
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Marine Program Office

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September 12, 2011

The Honorable John Laird, Secretary for Natural Resources
Chair, California Ocean Protection Council
California Natural Resources Agency
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VIA USPS AND ELECTRONIC MAIL: opc.comments@scc.ca.gov

Re: Comments on Ocean Protection Council Draft Strategic Action Plan 2012-2017

Dear Chairman Laird and Ocean Protection Council Members:

On behalf of Defenders of Wildlife (Defenders), a leading non-profit conservation organization representing more than one million members and supporters across the nation, more than 160,000 of our membership of which are in California, we are submitting the following comments on the 2011 Draft Five-Year Strategic Plan (Draft Plan). We appreciate all of the hard work that the Ocean Protection Council (OPC) staff and members have contributed to developing the Draft Plan and the opportunity for us to provide further comments.

The OPC has made substantial progress on several accomplishments on California ocean and coastal conservation and protection, including marine debris prevention and reduction, sustainable seafood initiatives, science integration, a monitoring program for Marine Protected Areas, and seafloor and shoreline mapping. We support the inclusion of the section in the Draft Plan that serves as a self-evaluation of the last five years and a discussion of ways to improve OPC's effectiveness. We further support the OPC on identifying five substantive focal areas: 1) climate change, 2) fisheries and marine ecosystems, 3) land-sea interactions, 4) industrial uses of the ocean, and 5) improved use and sharing of scientific information to support ocean governance and management—that cuts across all of these focal areas. These five areas emphasize the major issues of concern not only impacting our California coast and ocean, but federal waters as well. Also, we greatly look forward to the OPC implementing a sustainable seafood program for California fisheries as mandated by AB 1217 and appreciate OPC's role in getting this launched and overseeing its implementation. Overall, the Draft Plan is very good and our comments below serve only to improve the plan.

In our comments, we have a couple of general comments and will focus additional comments on the

focal areas of **climate change** and **land-sea interactions**; and we will incorporate by reference comments from Natural Resources Defense Council, Heal the Bay, California CoastKeeper Alliance, the Nature Conservancy, Monterey Bay Aquarium, Save the Bay, and Ocean Conservancy on the other focal areas of **fisheries and marine ecosystems**, **industrial uses of the ocean**, **science-based decision making**, as well as the issue of *Marine Debris* under the **land –sea interaction focal area**.

General Comments

As it states in the Draft Plan, “the OPC’s overarching role is to coordinate and lead ocean management and protection in California in three primary ways: 1) by addressing cross-cutting ocean issues that do not fall neatly under the purview of one agency; 2) by developing forward-looking policy recommendations to advance new or refine existing laws and regulations; and 3) by coordinating across state institutions whose decisions affect coastal waters and the ocean environment.” As for goal #2, OPC must play a much stronger role with regards to policy by supporting both agency policy and legislation aimed at addressing coast and ocean issues within the focal areas of the OPC. This past year, there have been a number of coast and ocean bills: AB 376 on shark finning, AB 1112 on oil spill readiness, various bills having to do with marine debris, and others. In addition the U.S. Fish and Wildlife Service (FWS) just announced a very important proposed policy decision that affects not only one of California’s imperiled species, the southern sea otter, but the entire nearshore marine ecosystem due to the sea otter’s role as a keystone and indicator species. After decades the FWS has proposed to end the translocation program and eliminate the “no-otter” management zone, concluding that in order for southern sea otter recovery to occur in California, sea otters need to be able to expand their range naturally and re-occupy historic habitat. And, the return of the sea otter translates to a healthy and thriving nearshore ecosystem. The OPC must weigh in on current and future legislation affecting our ocean as well as this important ocean policy issue for California focusing on the southern sea otter.

In addition, we think that “Guiding Principle” number 6 on page 8 of the Draft Plan, that “health of fish” is too narrow. This should read “.....the health of all marine resources should be a priority of the state.”

Climate Change Focal Area

Defenders strongly supports the inclusion of climate change as a focal area of the five-year action plan. We offer the following suggestions to clarify and improve the efficacy of the objectives and actions within the Draft Plan.

1. Utilize consistent terminology when describing the Plan’s climate change response.

The Intergovernmental Panel on Climate Change has established a vocabulary for describing climate change responses, in which the word “mitigation” is used to describe actions to reduce the emissions or increase the uptake of greenhouse gas that cause climate change, and “adaptation” is used to describe actions to lessen the damage caused by climate change to human or natural communities. The terminology in the Draft Plan appears to reverse this convention, which is confusing to any reader familiar with the standard body of climate change response literature. For instance, the Draft Plan’s Goal statement for the Climate Change Focal Area is to: “Reduce, mitigate and communicate the harmful impacts of climate change. . .” In this sentence, “reduce” seems to refer to what the IPCC calls “mitigation” and the term “mitigate” seems to refer to “adaptation.” Later, under Objective 1.1, the Draft Plan appears to use “mitigation” and “adaptation” in the IPCC sense. Elsewhere, the Draft Plan also speaks of “reduce the causes” (mitigation) and “cope with the impacts” (adaptation). We recommend that the Draft Plan apply the terms consistent with the IPCC, rewording the Goal statement to read: “Mitigate, adapt to, and communicate the harmful impacts of

climate change. . . .”

2. The sections of the Draft Plan should reflect the elements of the overarching goal.

Issue 1 and Issue 2, while describing important adaptation measures for sea level rise and ecosystem impacts, do not follow the overarching goal statements. Reading the Goal, one would expect the Draft Plan to contain objectives and actions related to mitigating climate change (i.e., reducing greenhouse gas emissions or increasing their uptake), adapting to climate change (the topic of Issue 1 and Issue 2 in the current version of the plan), and also communicating the causes and impacts.

We recommend that the mitigation of climate change receive its own “Issue” and language describing mitigation be pulled from the various locations where it is scattered through the document (eg, Objective 1.1, Action 1.1.1). The OPC should develop objectives, actions and metrics for evaluating actions and policies to advance mitigation goals. These could include plans to reduce the “carbon footprint” of the OPC’s operation, a commitment to greater involvement in policy and legislation related to climate change mitigation, and development of a framework to weigh the economic and ecological costs and benefits of potential proposals for ocean-based carbon sequestration or geoengineering projects.

We also recommend that the elements of the Draft Plan should be more parallel to what is highlighted in the goal. For instance, the overarching goal should mention infrastructure, since the actions and objectives actually focus extensively on infrastructure. On the other hand, ecosystem impacts, which are mentioned in the goal, receive less treatment in the actions and objectives; we recommend that the actions and objectives should give more weight to ecosystem impacts.

3. Strengthen the Actions planned under Issue 1 in order to achieve the objectives.

We support the Issue 1 objectives of improving understanding of vulnerability to sea level rise and flooding, and actions to reduce that vulnerability. However, we recommend taking another look at the actions and metrics to ensure that they are meeting those objectives. For instance, one of the metrics under Action 1.1.1 is “Coastal and Ocean Working Group convened regularly” but the metrics contain no indication of what they will accomplish when they convene. Similarly, the actions under Objective 1.2 are not sufficient to actually reduce the risk. Action 1.2.1, “Provide syntheses of impacts and vulnerabilities” seems to fit better under Objective 1.1 than Objective 1.2. The metrics under Action 1.2.2 should include “investments made to update existing infrastructure that has been identified as vulnerable.” We also recommend that an Action should be added to incorporate ecosystem-based adaptation measures (restoring and improving wetland function, dunes, etc.) as a means of adapting to vulnerabilities from sea level rise and storm surges. Additionally, as mentioned above, coastal ecosystems should be included in Objective 1.2, since they are part of the overarching goal. Finally, we urge a specific reference to the recommendations found in the Natural Resources Agency’s Climate Adaptation Strategy as one of the key policy resolutions that recommends changes in laws, regulations, guidance documents, and processes to reduce risk and protect public resources (Action 1.2.2).

4. Broaden and strengthen the objectives and actions under Issue 2.

Issue 2 in the current Draft Plan covers the very important topic of understanding and adapting to marine ecosystem changes from climate change. We urge the inclusion of tidal wetland and estuarine ecosystems in this Issue area. We support Objective 2.1, “Improve understanding of ocean acidification and identify opportunities to adaptively manage its impacts.” However, the equally important Objective 2.2 only covers “increase understanding of climate change effects on marine ecosystems,” and lacks the critically important clause of adapting to these. Actions and metrics proposed under Objective 2.2 would also benefit from more specificity with respect to the types of climate change impacts that should be studied. We recommend that the Draft Plan specify areas for

investigation, including: thermal tolerance impacts to plankton populations and distribution; the interaction between climate changes and ENSO and other decadal oscillations; the distribution, severity and epidemiology of disease and harmful algal bloom outbreaks; and changes in fish, seabird, and marine mammal populations and breeding success. Objective 2.2 should also include actions and metrics for helping marine ecosystems adapt to these changes.

Land-Sea Interaction Focal Area

Our initial comment on this section is that there is currently a multinational, multiagency project investigating sea otters as health indicators of coastal waters and marine resources from California north through Canada and Alaska. Partners in this project are U.S. Geological Survey (USGS) with key research partners from the Monterey Bay Aquarium, Department of Fisheries and Oceans Canada, National Park Service, U.S. Fish and Wildlife Service, Seattle Aquarium, University of California, University of Idaho, University of Wyoming and California Department of Fish and Game. This project is viewed as a groundbreaking study to look at sea otters and the nearshore ecosystems they inhabit. A summary of the project is as follows:

[The Coastal Ecosystem Responses to Influences from Land and Sea project will investigate the many interacting variables that influence the health of coastal ecosystems along the Northeast Pacific shore. These ecosystems face unprecedented challenges, with threats arising from the adjacent oceans and lands. From the ocean, challenges include acidification, sea level rise, and warming. From the land, challenges include elevated biological, geological and chemical pollutants associated with burgeoning human populations along coastlines.](#)

Given the broad involvement from state and federal agencies, universities, institutions and organizations and the scope of this project, it seems very appropriate for the OPC to be involved in supporting it, using results to inform present and future California ocean and coast policy issues, and to assist in the coordination of the messaging of the project results.

Our other significant comment for this focal area is the fact that the sea otter is a species that is a key indicator for ocean health. In recent years a high mortality rate has been documented in the California, or southern, sea otter. Researchers have shown that infectious diseases and parasites consistently account for 40-50% of southern sea otter deaths. The Monterey Bay Area and Morro Bay are two particular hot spots for sea otter disease. Many of these diseases appear to be newly introduced and are related to human activities and pollution that originate on land, including agricultural and urban runoff, along with industrial and municipal discharge that contribute to rising pollution levels in our coastal waters. The work of researchers at the Marine Wildlife Veterinary Care and Research Center (MWVCRC), California Department of Fish and Game (CDFG), USGS, and the University of California, Davis and Santa Cruz is constantly resulting in more insight into sea otter health as it relates to water quality. The sea otter has been used as the “canary in the coal mine” for nearshore ecosystem health (see “Sea Otters in a Dirty Ocean”, JAVMA, Vol 231, No. 11, December 1, 2007). While the Draft Plan does a good job of listing objectives in addressing coast and ocean water quality issues and coordinating with the various state agencies like the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCB), there are many others that are working on these issues like MWVCRC, CDFG, USGS, U.C. Davis, U.C. Santa Cruz, Monterey Bay Aquarium and [programs like CClean](#) that are “designed to help municipal agencies and resource managers to protect the quality of nearshore marine waters in the Monterey Bay area.” Coordination with and integration of projects and findings from these groups would benefit OPC’s work on this issue.

In addition, the Draft Plan mentions that OPC partnered with the National Oceanic and Atmospheric Administration and the Southern California Coastal Water Research Project to initiate

the California Harmful Algal Bloom Monitoring and Alert Program. This is great news, but we would like to suggest that this program go beyond the traditional monitoring of HABs in the ocean. There is an emerging concern with a fresh blue-green algae, *Microcystis*, that has been implicated in the deaths of at least 21 southern sea otters, which are federally listed (see “Evidence for a Novel Marine Harmful Algal Bloom: Cyanotoxin (Microcystin) Transfer from Land to Sea Otters”, PLoS ONE | www.plosone.org 2 September 2010, Volume 5, Issue 9). Not only are these blooms dangerous for sea otters, but *Microcystis* blooms can have harmful impacts on other aquatic species, domestic animals and humans. And, while the issue with sea otter deaths in Monterey Bay is likely connected with one water body, Pinto Lake, the concern is that *Microcystis* blooms are more widespread in California than we currently know, based on some preliminary data. We suggest that the Draft Plan include among its objectives in this focal area to expand its focus beyond traditional monitoring of marine-origin harmful algal blooms and include monitoring for land-sea transfer of freshwater toxins like microcystin and anatoxin. Over the years researchers have also been carefully studying the introduction of biological pathogens like *Toxoplasma gondii*, the parasite that is associated with felids (domestic cats, feral cats and wild cats, like mountain lions and bobcats). This parasite poses a significant threat to sea otters and potentially other marine wildlife. It would be nice to see an objective dealing with the monitoring of biological pathogens and coordination with the appropriate groups and agencies.

A final comment on the **land-sea interaction focal area** has to do with the issue of *Sediment Management* as discussed in the Draft Plan. We commend the OPC for Action 8.3.1 to send policy letters and take other steps to support dam removal as a way to restore sediment function to the ecosystem. This is a very important step in this effort and it is refreshing to see someone put something like that in a plan as a way of achieving restoration of sediment processes.

In closing, Defenders hopes that these recommendations will be taken under consideration when finalizing the OPC Strategic Plan. The OPC must use its broad authority over its member agencies; its technical, scientific and policy expertise; and its political standing to expeditiously put into action a Strategic Plan that will tangibly address California’s existing and growing coast and ocean issues. Please feel free to contact me by email (jcurland@defenders.org) or by phone (831-726-9010) if you have any questions or would like to further discuss any of the comments.

Sincerely,



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