



September 12, 2011

John Laird, Secretary for Natural Resources
Chair, California Ocean Protection Council
California Resources Agency
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

Dear Chairman Laird:

The California Coast Resilient Habitats Campaign of Sierra Club California would like to congratulate the Ocean Protection Council on its Draft Strategic Plan. We are pleased to see several of the recommendations we put forth in our comment to the Council in March, 2011 for the Sea Level Rise Resolution are reflected in your strategic plan. However, we do have a few areas of concern which are addressed below.

Wetlands

We are concerned that the protection of tidal wetlands is not adequately addressed in your draft strategic plan. On page 19 of the plan it states: "We decided not to address how tidal wetlands will evolve with SLR, since this issue is being addressed by other state agencies and regional collaboratives."

1. While we would agree in terms of science and restoration, we believe that the OPC has a critical policy role in protecting tidal wetlands. Tidal wetlands are particularly vulnerable to sea-level rise due to their low lying nature. They must be provided the opportunity to migrate inland as sea-level rises, or they will drown. The State has already recognized the value of wetlands, both as habitat and for the services they provide to humans by investing in their restoration and preservation. Here are the policies we think need to be addressed:
 - a. Tidal wetland vulnerability to sea-level rise
 - b. The need for adequate setbacks for development
 - c. Permit the migration inland of wetlands as sea level rises by avoiding dikes for agricultural lands

The OPC is tasked by the California Adaptation Strategy to develop "Decision Guidance," which includes, "Allow continuation of important natural processes, such as littoral drift, and avoid any impacts to neighboring habitats or structures." Therefore, because there is a need for policies to protect tidal



wetlands from sea-level rise and because the OPC is tasked in the CAS to develop “Decision Guidance” to provide protection for neighboring habitat, we respectfully call on the OPC to accept responsibility for sea-level rise related policies for tidal wetlands in its strategic plan.

Desalination

In regards to desalination, we are supportive of your existing policy on no open-ocean intakes and co-location of facilities using Once-Through Cooling (OTC), but we see the need for policies on “in-plant dilution” and on analysis of the impacts of desalinization.

1. We support the OPC’s position of no open-ocean intakes for desalination facilities. We also support the OPC’s position of no co-location with facilities using Once-Through Cooling.

These policies are vital to ensuring the State Water Board’s OTC Policy is not undermined.

2. We respectfully request OPC to take a position of “no in-plant dilution with seawater,” and to make its position known to the State and Regional Water Boards as the State Water Board’s Desalination Policy is developed and permits issued.

The Ocean Plan protects water quality by setting water quality standards in an outfall zone. Recently, Regional Water Boards have allowed the Carlsbad and Huntington Beach desalination facilities to meet these standards by taking-in additional seawater to dilute the brine waste before discharging the mixture to the ocean. In-plant dilution with seawater not only undermines the Once-through Cooling Policy, but is illegal under the Porter-Cologne Act.

Water Code Section 13142.5 requires desalination facilities to use the best-available technology to minimize the mortality of marine life. Killing fish to dilute brine does not equate to the Best-Available Technology. Various other technologies exist to dilute brine, including: (1) high pressure diffusers; (2) Zero Desalination Discharge technologies that remove brine contaminants; and (3) dilution with recycled water or wastewater discharges.

3. The OPC should also work with DWR and the State Water Board to critically analyze the impacts of ocean desalination to marine ecosystems versus other water supply strategies, including water conservation, recycling, and storm water recharge.

This should include GHG emissions impacts. Work has already begun on this, and has shown that the enormous GHG emission loading associated with ocean desalination already makes it one of the most problematic water supply strategies from a long list of potential options.

4. OPC should study and report on the cumulative impacts of current, proposed and potential desalination facilities.

This cumulative impacts study should include the impacts from increased energy demand, greenhouse gas emissions, discharges of brine (including acidification), impingement and entrainment, salt water intrusion into local aquifers, and other cumulative coastal and marine

ecosystem impacts. The OPC should then ensure that the study's results are transmitted to the appropriate agencies, and should advocate for their inclusion in relevant policies, permits and planning documents.

This is important because private industry and water agencies are planning over 20 open ocean desalination facilities statewide, an increase in capacity from 1,700 AFY to over 300,000 AFY. This is an increase of over 18,000% in desalination capacity. Left unchecked, the cumulative impacts of multiple open ocean desalination facilities could effectively undermine the gains to the marine environment from implementing the OPC's resolution on OTC and your efforts to find adaptation strategies for imminent climate change and sea level rise.

With the exceptions of our request for additional guidance for tidal wetlands and the need for policies on "in-plant dilution" and an analysis of the impacts of desalinization, we believe within the objectives and metrics put forth in the OPC's Draft Strategic Plan. The objectives that you are putting forth in the strategic plan are vital for guiding good planning, development and preservation of our ocean.

Suggestions for the Second Climate Change Resolution

At its March, 2011 meeting, the OPC committed to a second climate change resolution. Staff has suggested the process for developing that resolution would be born of the strategic planning effort. Therefore, we are recommending specific content we hope to see in OPC's second climate change resolution and believe, as well, this content would be appropriate as general guiding principles for inclusion in the Draft Strategic Plan.

1. Do not place people, businesses and infrastructure in harm's way of sea-level rise and coastal flooding.

While OPC's March sea-level rise resolution did provide guidance regarding sea level rise, avoided risks and regional planning, the OPC needs to be more specific and use stronger language if it is to communicate the urgency as stated in the Draft Strategic Plan. The tone and language used by the OPC is suggestive of a science body that does not want to fully commit itself. While its work is largely grounded in science, the OPC is also a policy body that has responsibility to provide leadership by issuing definitive decision guidance that does not dilute, minimize, or mask the meaning and implications of hard scientific truths and findings. Sierra Club California calls on the OPC to provide specific guidance on the following:

- a. All levels of government in areas that will be affected by sea-level rise and coastal flooding should prepare plans for adaptation and mitigation by 2017.
- b. Where data is conflicting or uncertain, the precautionary principal should be utilized. What is clear about sea-level rise and coastal flooding is that we have consistently increased our projections and there is reason to believe that current projection may increase. Therefore, precaution is called for.
- c. Whenever possible, OPC recommends local and regional governments provide further analysis of sea-level rise and coastal flooding in their jurisdiction to improve the scale of the modeling and address local phenomena.

- d. Any new development in or adjacent to a sea-level rise or coastal flooding hazard zones should include permit conditions that:
 - i. Do not allow future building of seawalls or other hard engineering structures that are detrimental to habitat to protect the development.
 - ii. Contain rolling easements that cede property rights should the property be inundated due to sea-level rise.
 - iii. Contain appropriate setbacks based on best known science at the time.
- e. EIR's should be required to assess only non hard engineering alternatives for mitigating sea-level rise and coastal flooding in coastal communities.
- f. Taxpayers, who assume the cost of disaster relief, deserve to be protected from reasonably foreseeable costs of eventual hazard relief for new developments.

2. No seawalls or other hard engineered structures.

Seawalls, groins, revetments and other hard engineered structures are detrimental to coastal ecology and economy as a whole. They decimate habitat, cause beaches to erode, stop natural sediment transport and create significant barriers to public access. The current interpretation of the Coastal Act, which allows protection of any existing property as soon as that property is built, is going to exacerbate the loss of habitat, fish hatcheries, beaches, public access and harm the coastal economy. Based on our greater understanding of the impacts of seawalls since the passing of the Coastal Act of 1976, Sierra Club California calls on the OPC to acknowledge the detrimental impact of seawalls and other hard engineering protections. Furthermore, in its role to recommend policies and legislation as necessary to protect our oceans and coast, Sierra Club California asks the OPC to call for reconsideration of existing policies regarding seawalls. OPC is in a unique position to strongly counter the extreme pressures that will be exerted on governments to erect and approve seawalls in the face of sea-level rise and coastal flooding.

3. The use of natural systems for shoreline protection.

The use of natural systems for shoreline protection improves habitats for wildlife and fish while providing protection to the shoreline. Sierra Club California calls on the OPC to include in the second climate change resolution a clear and ambitious commitment to the Strategic Plan metric to assess shoreline protection methods and adaptation options and to provide a specific preference for natural systems.

4. Protect and Expand Wetlands.

Wetlands are ecosystems that are particularly vulnerable to sea-level rise. Already low lying, wetlands will be inundated by sea-level rise unless they are allowed to retreat inland. California has already lost 75%-90% of these critical ecosystems, and yet there is still a persistent development threat to wetlands and little understanding of the need to preserve their ability to retreat in the face of sea-level rise. The contributions wetlands make, from flyway to hatcheries, are so important and the ecosystems are so particularly vulnerable to being flooded by sea-level rise, that wetlands need a specifically recognized level of protection. Additionally, wetlands provide communities protection from coastal flooding and storm surges, acting as a sponge for flood waters and calming the impacts of storm surges. Therefore, Sierra Club California calls on the OPC to acknowledge the special values, functions and vulnerability of wetlands in its second

climate change resolution and call for appropriate development setbacks to allow wetlands to retreat from sea-level rise.

Sierra Club California wishes to thank the Ocean Protection Council for its concern and care of our ocean and coast. We believe that the Council is heading in the right direction with its Draft Strategic Plan, and we are looking forward to making the objectives and metrics real. For your part, we ask that you take a strong stand in your second climate change resolution that keeps people, businesses and infrastructure out of harm's way, calls for the reconsideration of existing policies on seawalls, creates an assessment of shoreline protection methods with a preference for natural systems, provides special protections for wetlands, provides an analysis on the impacts of desalination, and includes the need for policies on in-plant dilution. We ask you to establish these strong protection policies in the name of a healthy California ocean that provides economic and ecological benefits to our coast.

Sincerely,

Dave Grubb, Co-Lead



Linda Zabloutny-Hurst, Co-Lead



Megan Norris, Organizer



California Coast Resilient Habitats Campaign