



MEMORANDUM

TO: California Ocean Protection Council
FROM: Jennifer Phillips, Program Manager; Abe Doherty, Climate Change Policy Advisor; Nick Sadrpour, Sea Grant Fellow
DATE: July 29, 2015
RE: Updates on work related to the impacts of climate change including the West Coast Ocean Acidification and Hypoxia Science Panel, Executive Order B-30-15 and implementation of the *Safeguarding California Plan*, and the sea-level planning database mandated by AB2516

1. West Coast Ocean Acidification and Hypoxia Science Panel

The West Coast Ocean Acidification and Hypoxia Science Panel (the Panel) was convened in 2013 by the California Ocean Science Trust at the request of the California Ocean Protection Council. Soon after, the states of Oregon and Washington, and the province of British Columbia joined the effort. An unprecedented collaboration of 20 leading scientists from these four jurisdictions, the Panel is aimed at providing the state of the science and strategies for policy and management action at multiple levels.

This memo provides Council members with an update of the Panel’s activities and the next steps in the coast-wide approach to tackling ocean acidification and hypoxia. Overall, work related to the Panel is advancing on all fronts, including product development and release, decision-maker engagement and partnership building across boundaries, and communication and outreach efforts.

Panel Updates and Scientific Products

The Panel is working diligently to finish their suite of outstanding products, which include: (1) peer-reviewed publications addressing topical themes identified by decision-makers (e.g., ecosystems, physiology, water quality, oceanography, and natural resource management), (2) translational ‘science-to-policy’ documents tailored to specific agency needs, (3) more visionary translational documents that provide innovative ideas for how science can inform management now and in the future (e.g., a monitoring framework and future science landscape), (4) an executive summary for decision-makers which will encapsulate the key messages and insights that are emerging from this coast-wide effort.

Many products are completed and can be accessed on [the Panel website](http://westcoastoah.org/panelproducts/)¹, and the remaining products have been initiated and are rapidly progressing. The emerging scientific findings threaded throughout the products are:

1. The global problem is elevated atmospheric CO₂
2. This is a regional intensification of a global problem that requires a coordinated regional approach
3. There are things you can do now (mitigation)
4. Support resilient ecosystems (adaptation)

¹ <http://westcoastoah.org/panelproducts/>

5. Accelerate the development and integration of knowledge required to improve decisions
6. There is a cost to inaction

Decision-Maker Engagement

As the panel draws to a close this summer and fall, the Ocean Protection Council staff and the Pacific Coast Collaborative² will play a central role in communicating and translating the Panel's work to inform policy and management decisions at the state and federal level. During the week of July 15, the Pacific Coast Collaborative Ocean Acidification and Hypoxia Subcommittee (which includes OPC Executive Director, Cat Kuhlman) will travel to Washington, D.C. to engage federal partners, including congressional members and staffers, agency administrators and subject matter experts at NOAA and EPA, as well as the White House Office of Science and Technology Policy (OSTP) and the Council on Environmental Quality (CEQ). The purpose is to hold a series of discussions on how we can better partner and align priorities across state and federal government to respond to the Panel's findings, and act now on ocean acidification and hypoxia to build resilience and strengthen ocean health for the long-term. The Pacific Coast Collaborative is currently drafting a series of papers discussing policy and research planning on the West Coast and how to best collaborate with the federal government in light of the scientific foundation and recommendations provided by the Panel.

2. Executive Order B-30-15 and Implementation of the *Safeguarding California Plan*

Consistent with OPC's role as coordinator for ocean and coastal policy for the state, OPC's Executive Director and staff have been designated by the California Natural Resources Agency as the sector leads for implementation of the climate adaptation policies of [Governor Brown's Executive Order B-15-30](#), issued on April 29, 2015. This executive order sets forth new emission targets for 2040 and also calls for several actions to further state action to prepare for the impacts of climate change. The executive order reiterates policies that OPC has recommended in previous resolutions, including the [OPC Resolution on Sea-level Rise](#) (2011) and the [OPC Resolution on Implementation of the Safeguarding California Plan](#) (2014). For example, the executive order calls on state agencies to incorporate climate change into planning and investment decisions, using certain guiding principles such as prioritizing natural infrastructure solutions and protecting the state's most vulnerable populations. This policy is similar to OPC's recommendations to incorporate coastal climate impacts into all relevant decision-making, using the guiding principles from the [Safeguarding California Plan](#) such as protecting the state's most vulnerable populations and prioritizing solutions that use natural processes and habitats.

Executive Order B-30-15 tasks the Natural Resources Agency with updating the state's climate adaptation strategy, the *Safeguarding California Plan* every three years and with ensuring that its provisions are fully implemented. To prepare the implementation plan for the *Safeguarding California Plan* that is called for in the Executive Order, OPC staff is coordinating with the Natural Resources Agency staff and with the State Coastal Leadership Group on Sea-level Rise (Coastal Commission, San Francisco Bay Conservation and Development Commission, Coastal Conservancy, State Lands Commission and State Parks and Recreation). Since the Leadership Group on Sea-level Rise, staffed by OPC and the Ocean Science Trust, had already been working on an Action Plan called for in the [OPC](#)

² The Pacific Coast Collaborative is a forum that brings together leaders of the West Coast jurisdictions to promote cooperative action and a common voice on issues facing Pacific North America. One of their priorities is ocean acidification and hypoxia.

[Resolution on Implementation of the Safeguarding California Plan](#) (2014), we are in good shape to complete the sector implementation plan by the deadline in the Executive Order of September 2015. There will be a public meeting for input on the draft implementation plan in late August 2015.

We will be working with our state agency partners on reporting back on actions taken to implement the *Safeguarding California Plan* by June 2016, as called for in the Executive Order. OPC's Executive Director is also coordinating with the JR DeLaRosa, Special Assistant for Climate Change for the Natural Resources Agency and other state leaders on implementation of other components of the executive order, including the following:

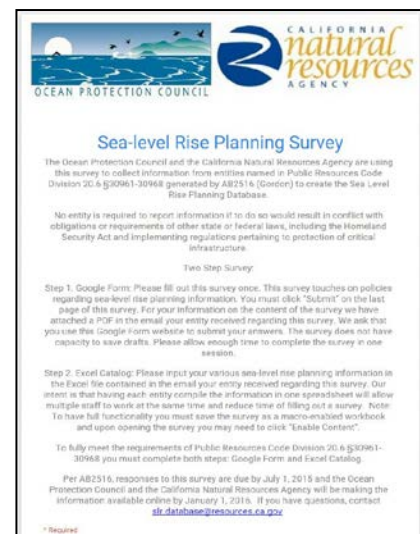
1. incorporating sea-level rise into the state's five year infrastructure plan;
2. developing guidance on how to take climate change into account using full life-cycle cost accounting to evaluate and compare infrastructure investments and alternatives; and
3. establishing a technical advisory group by the Governor's Office of Planning and Research to help state agencies incorporate climate impacts into planning and investment decisions.

3. Sea-level Rise Planning Database (AB2516)

In an effort to catalog California's efforts on planning for sea-level rise, last year AB2516 was passed into law. This legislation called for the California Natural Resources Agency in collaboration with the Ocean Protection Council to conduct a survey of "sea-level rise planning information", defined as "studies, programs, modeling, mapping, cost-benefit analyses, vulnerability assessments, adaptation, assessments, and local coastal programs . . . that have been developed for the purposes of addressing or preparing for sea level rise" (Public Resources Code Division 20.6 §30961-30968). The designated entities of this survey consisted of ports, airports, and electric and natural gas utilities located in the coastal zone and San Francisco Bay Area. Several state agencies were also designated in the legislation as required reporting entities, including: California Coastal Commission, State Energy Resources Conservation and Development Commission, Department of Transportation, Regional Water Quality Control Boards, San Francisco Bay Conservation and Development Commission, State Coastal Conservancy, State Lands Commission, and State Water Resources Control Board.

Initial Survey

In June, OPC staff developed a survey which consisted of two parts: a Google survey and Excel catalog. The Google survey targeted policy questions with the goal of identifying usage level of certain sea-level rise policies by entities. The Excel catalog was designed to compile the entire "sea-level rise planning information" (as defined above) from the various entities. Required reporting entities provided OPC staff with feedback that an Excel file was preferred because Excel file allowed multiple staff persons to work on the catalog at once. As per the legislation, responses were due July 1, 2015.



Upcoming Work

The OPC is currently working towards compiling all of the responses into a single public database. The legislation requires this database to be posted on-line and accessible by January 1, 2016. In addition, the OPC in collaboration with CNRA are working to revise the questions in the survey to glean more information related to the capacity of entities in their efforts to plan for sea-level rise. In an iterative process the survey will be conducted every six months to allow tracking of sea-level rise planning across the state.