CALIFORNIA OCEAN OBSERVING SYSTEMS

Southern California Coastal Ocean Observing System (SCCOOS)
Central and Northern California Ocean Observing System (CeNCOOS)

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September 12, 2011

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

Dear Secretary Laird:

Thank you for the opportunity to comment on the California Ocean Protection Council's (OPC) Draft Strategic Action Plan for 2012-2017. California's ocean observing systems, the Southern California Coastal Ocean Observing System (SCCOOS) and the Central and Northern California Ocean Observing System (CeNCOOS), are pleased to submit these joint comments that we hope will be helpful to the work of the OPC.

We strongly support the OPC's cross-cutting goal of improving the use of scientific information in ocean and coastal resource decision making. SCCOOS and CeNCOOS are the regional ocean observing entities for California under the national U.S. Integrated Ocean Observing System (IOOS®), authorized through the Integrated Coastal and Ocean Observation System (ICOOS) Act of 2009. The ICOOS Act established IOOS as a national ocean observing, data management, and information dissemination system to support ecosystem-based resource management, among other related purposes. Therefore the OPC, SCCOOS, and CeNCOOS share many of the same end goals regarding the use of scientific information in decision-making, even while our structures, activities, powers, and contributions to meet this objective may differ. We appreciate the inclusion of Action 14.2.2 to seek increased federal funding for a sustained and integrated ocean observing system in California, and it is our hope that the OPC and California's ocean observing systems will work together under the OPC's next strategic action plan to achieve our common goals.

On page 40 of the draft plan, under Section E (Science-Based Decision-Making – Cross-Cutting Area), several bullet points are listed as areas where the OPC will focus its attention over the next five years given the expected lack of funds to support large-scale data collection efforts. The first two are: "Improving the management, use, and sharing of scientific and geospatial information, as outlined in AB 2125," and "Facilitating management-driven research to continue to bridge the research conducted by the state's premier academic institutions with the information needs of the state's coast and ocean managers." These points, which we support as important and worthwhile efforts, are then expanded upon in the following Issue Areas, but in a manner that we feel presents an incomplete picture of an effective science-based decision-making process as a whole.

We see the process of science-based decision-making as a cohesive end-to-end system, with each element serving a critical role: measurements and data streams, data dissemination and management, modeling, instrumentation development, and the development of applications such as data products. While the draft plan addresses most of these elements, it does so disjointedly, with insufficient attention on the whole and on the importance of the linkages between each step. From our perspective, these linkages are the key to a successful end-to-end decision-support system. Each step is informed and optimized by direct communication and collaboration between the system end-users—in this case, coastal managers—and the system builders and operators who design and maintain data collection or observing systems, manage data, build and validate models, and produce data products that ultimately inform specific management questions.

We understand that it is necessary for the OPC to target its efforts in an era of extremely limited resources, and we also recognize that the draft plan is structured in part to address the OPC's implementation of AB 2125. Given these constraints, two specific recommendations for the draft plan are:

1. Expressly state how and why the continuation of ongoing data collection and management efforts—for example, but not limited to, the monitoring of ocean surface currents with high-frequency (HF) radar enabled by the Coastal Ocean Current Monitoring Program (COCMP) and the monitoring of waves through the Coastal Data Information Program (CDIP)—will serve as a foundation for the OPC's ability to improve the use and sharing of scientific information and to advance the development of tools and strategies necessary for ensuring that science is effectively incorporated into management decisions. Without efforts like these, many of which involve a past or ongoing investment by the state, the scientific information to be shared and used simply would not exist.

   The State of California has responsibility in the regulation of the production and transfer of oil in State waters. As demonstrated in both the Cosco Busan and Gulf of Mexico Deepwater Horizon incidents, HF radar provides an enhanced capability for efficiently responding to a spill. This capability should continue to be supported through either OPC funding or through regulatory requirements imposed upon the producers. The State has invested $21 million in the infrastructure, yet has no business plan for ongoing support.

   Ongoing observations will also directly enable the accomplishment of other objectives of the OPC draft plan, including:

- Storm events, coastal flooding, and sea-level rise adaptation, which require monitoring of California's wave climate and coastal erosion patterns.
- Understanding the ecosystem impacts of climate change, which will require ongoing observations of physical, chemical, and biological ocean parameters in California's coastal ocean at a scale that allows for an understanding of the local impacts of global climate processes.
- Supporting effective fisheries management, as the plan describes in Action 4.1.3 to improve management of anadromous fish by enhancing use of ocean data in modeling and decision making.
- Realizing benefits of the State's marine protected areas (MPAs), as effectiveness of MPAs must be analyzed in a broader oceanographic and climate context.
- Evaluating and planning for emerging and future industrial uses of the ocean, including alternative offshore energy as well as the ongoing threat of oil spills, which will require

an understanding of the spatial variability of oceanographic parameters such as waves and currents over the long term as well as in real time, as was discussed during the Spotlight on Science portion of the OPC's August 2011 meeting.

2. Recognize the significant process required to translate raw data into information products useful to managers. It is a process that involves addressing fundamental scientific questions, maintaining and utilizing advanced data management systems, and exercising concerted effort to facilitate communication among disparate parties. This process has been at the foundation of SCCOOS and CeNCOOS since the beginning. As described above, each step is critical and will require the expertise and knowledge of scientists and managers alike.

Please feel free to contact us with any questions about these comments. Again, thank you for the opportunity to provide input, and we hope to work closely with the OPC as it implements its next strategic plan.

Sincerely,

Julianna Thomas
SCCOOS Executive Director

Francisco Chavez
CeNCOOS Acting Director