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California Ocean Protection Council (OPC) Executive Director's Report December 2011

The Executive Director's Report provides an update on OPC outcomes and accomplishments since the previous OPC meeting. This report covers August 2011 to December 2011. This report is divided into four sections: Coordinated Governance, Policy Informed by Science, Innovative Solutions, and Supporting our Partners.

Coordinated Governance of Coastal and Ocean Management

Many different government agencies implement ocean and coastal management in California, and, consequently, multi-agency approaches are essential for complex management issues such as climate change, coastal water quality, and emerging industrial ocean uses. The OPC coordinates actions across all relevant agencies to improve the development and delivery of successful management solutions.

OPC Strategic Plan Update:

The Ocean Protection Council staff will soon release a revised strategic plan for a 30-day public comment period. Because of the significant revision of this plan based on the detailed comments we received, we are soliciting additional public comment on this revised draft. This draft plan has been revised based on substantial input from OPC members, the OPC Steering Committee, OPC Science Advisory Team, federal, tribal, industry, and NGO partners, and the public. It has been a truly valuable process to engage directly with so many partners and hear firsthand about their respective priorities. Through this dialog we have learned a great deal and strengthened communication, which is essential to successful collaboration and policy development and ultimately to effective ocean and coastal resource management and protection. The comments clarified the need to have a plan that is both strategic as well as responsive to broad array of partner priorities. Each comment was considered carefully and the revised draft reflects OPC staff's effort to address the comments to the best of our ability.

This draft plan recognizes that the OPC will not be able to address every ocean issue facing the state of California. With this constraint in mind, this plan has been crafted to strategically guide the OPC's efforts so that they have maximal effect on the most important issues given the OPC's core competencies as well as funding and staffing constraints.

Marine Renewable Energy Working Group:

The OPC established the Marine Renewable Energy Working Group (MRE Working Group) in March 2010 to enhance collaboration and consistency among state agencies in their approaches to addressing the development of offshore renewable energy. The working group's scope includes addressing issues related to permitting, planning, and managing marine renewable energy projects, and implementation of the Federal Energy Regulatory Commission (FERC) /California Memorandum of Understanding (MOU). The working group membership consists of state agencies, however potential developers, stakeholders and federal agencies (National Marine Fisheries Service, U.S. Fish and Wildlife Service, the U.S. Navy, the Federal Energy Regulatory Commission, and the Bureau of Ocean Energy Management, Enforcement and Regulation), all regularly participate in the meetings and discussions.

Table 3. Marine Renewable Energy Working Group Members

Laura Engeman (Co-chair) – Ocean Protection Council
Eugenia Laychak (Co-chair) – California Energy Commission
Cy Oggins, Kenneth Foster, Ninette Lee, Jennifer DeLeon, Sarah Sugar, Madhu Ahuja –State Lands Commission
Tom Luster, Alison Dettmer – Coastal Commission
Vicki Frey, Steve Ingram, Annie Manji, Bill Paznokas, Afifa Awan –Department of Fish and Game
Jaclyn Marks – California Public Utilities Commission

OPC staff hosted a workshop with members of the Working Group in October 2011 to develop a statewide regulatory guidance document for test and pilot ocean renewable energy projects. Between October and December, OPC staff drafted the guidance document with input and oversight from the Working Group members and will make it publicly available on the OPC website in December 2011. During the October workshop, Working Group members also provided input on a proposed resolution recommending an ocean renewable energy to be considered by the California Energy Commission. The resolution will be presented to the Council on December 16, 2011 and more information on these activities can be found in the December 2011 OPC meeting agenda materials.

Sharing Geospatial Data and Information:

The California Coastal and Marine Geospatial Working Group (CCMG-WG) was established in February 2010, in response to a 2009 OPC resolution. Working group members include technical users of geospatial data. Staff from the OPC and NOAA Coastal Services Center co-chair the group. The CCMG-WG facilitates the exchange and analysis of geographic information to assist in resource protection, support environmental assessments, and improve comprehensive planning. The California Geographic Information System (GIS) Council formally recognized the working group in October 2010.

Over the last few months, the CCMG-WG provided oversight and substantial input for the California Coastal and Marine Geospatial Data Information Management System Scoping Study that was completed in September 2011. The study conducted a detailed assessment of the coastal and ocean data needs of state agencies and provided several recommendations for better meeting the needs of these agencies. A key recommendation of the study is to develop a web-based information management systems, or geoportal, that would provide an easy to use interface and system for

discovering and accessing California coastal and ocean data. The full report can be found on the OPC website at: <http://www.opc.ca.gov/2011/04/coastal-and-marine-geospatial-data/>

As a follow-up to this study, OPC and the CCMG-WG began discussions with the State's Geographic Information Officer (GIO), who presented plans for developing a state geoportal in early 2012. The GIO's geoportal project provides substantial opportunity for meeting the coastal and ocean needs of the state agencies and the recommendation of the Scoping Study. Therefore, OPC staff are proposing to develop a workplan and budget with the GIO to undertake several actions to assist the GIO with integrating coastal and ocean data into the portal, to customize the geoportal to further advance the use and sharing of these data, and to develop funding and governance strategies to ensure that the geoportal continues to serve as a long term resource. The December 2011 staff recommendation provides more detail on these proposed activities.

Policy Informed by Science:

A key purpose of the OPC, identified in its authorizing legislation, relates to ensuring that the state's decisions about coastal and marine management are based on the best available science. The OPC's key partner for accomplishing this science integration is the California Ocean Science Trust (OST), which helps facilitate science-based decision-making by connecting science to policy and management. OST serves as an objective translator, identifying the best scientific knowledge and expertise available to inform ocean policy decisions. It also leverages state support with extramural funding and provides an institutional home to incubate specific programs that respond to state science, data, and information needs. While an independent organization, OST works alongside the OPC and in coordination with state agencies that have coastal and ocean resource management responsibilities.

OPC-Supported Scientific Studies

Final Report Released: *Plastic Debris in the California Marine Environment: A Summary of Current Research and Data Gaps:* As plastic debris accumulates in the Pacific Ocean, one urgent concern is the potential impacts on marine species, including ingestion, entanglement, and toxic releases as plastics degrade in seawater. To understand the status of this issue, the OPC coordinated with the Department of Toxic Substances Control (DTSC) to initiate a report that would serve as a place-marker for the current state of research on the sources, abundance, pathways, and impacts of plastic debris in California, including the emerging field of research: the toxicology of plastics in the marine environment. OST partnered with USC Sea Grant to complete the report. The final draft was thoroughly peer reviewed by experts in marine ecology, environmental engineering and water quality, as well as marine policy. The report was released to the public on October 1, and may be downloaded at the OPC's website: <http://www.opc.ca.gov/council-documents/>. The OPC and OST have forwarded the report to a variety of relevant policy-makers, managers, legislators and stakeholders, and plan to continue conducting outreach around the report into 2012.

Aquatic Invasive Species Vector Risk Assessments: The OST continues to coordinate the Aquatic Invasive Species Vector Risk Assessments. This project is a scientific assessment of the relative risks of commercial fishing, recreational boating, aquaculture, live bait, live imported seafood, and aquariums and aquascaping to help determine the appropriate policy actions that will support early detection and rapid response, as well as prevent introduction of invasives. Since this summer, the teams have continued collecting data on their vectors and developing outlines for each of the vector risk assessments. Most recently, OST facilitated a workshop in which all three teams came together to collectively discuss progress and approaches to coordinate the final reports from each team. OST has also begun working with the project science coordinator and the teams to plan for the final phase of this project, which will likely include an expert judgment panel.

Final Report Released: *Turning Data into Information: Making Better Use of California's Ocean Observing Capabilities (formerly the Synthesis for Coastal Ocean Observing Products)* This report assesses California's current ocean observing capabilities, identifying opportunities for critical information products to better support the state's ocean resource management and regulatory agencies. Focusing specifically on five topic areas (ocean energy, oil spills, coastal discharges, salmon recovery, and harmful algal blooms), specific management decisions were analyzed to identify the effective development and use of our ocean observing system. The report concludes that developing and sustaining this capacity is neither solely an institutional nor a technical challenge, but requires coordinated, statewide, strategic direction based on clearly defined management information needs to succeed. Funding models are briefly addressed.

Technical Advice and Coordinated Peer Reviewed Studies

Institutionalizing science-based decision-making requires ensuring the OPC relies on authoritative sources and that the science used by the OPC is vetted through established processes for ensuring the accuracy of technical information.

Completed peer reviews include:

- *Aquaculture Programmatic Environmental Impact Report (PEIR)* – Prepared for the Department of Fish and Game. Prioritization of scientific review components.
- *Geophysical Permitting Program Proposal* – Prepared by the State Lands Commission for the OPC. Addressing scientific guidance to low-frequency and high-frequency testing.
- *Synthesis for Coastal Ocean Observing Products (SCOOP)* – Prepared for the OPC.
- *Plastic Debris in the California Marine Ecosystem: A Summary of Current Research and Data Gaps* – see above.

The OPC Science Advisory Team (OPC-SAT)

OST coordinates the OPC-SAT to provide technical advice on OPC reports, evaluate the technical merits of scientific projects proposed to the OPC, and recommend outside experts to serve as peer reviewers for OPC proposals and projects, thus ensuring their quality. OST also coordinates semi-annual meetings

between the OPC-SAT and the OPC management team. The most recent meeting was held on September 30, 2011 in San Francisco.

Joint OPC-SAT/OPC Management Team Meeting - OST hosted the most recent Joint OPC-SAT/OPC management team meeting on September 30, 2011 at the BCDC offices in San Francisco. Highlights included:

- Dr. Mary Maxon of the White House Office of Science and Technology discussed her perspective on integrating science into national policy
- The OPC-SAT conducted a work group session with the OPC management team providing detailed comments on the draft OPC strategic plan

To download full meeting minutes of this one-day event, visit OST's website: <http://calost.org/>

OPC Strategic Planning Process – In addition to actively assisting the OPC in identifying and articulating science and information needs for the next five years, the OPC-SAT has continually provided input on each draft of the OPC's new five-year strategic plan. Most recently, the OPC-SAT discussed the draft in detail at the last joint OPC-SAT/OPC management team meeting (see above), and the OPC anticipates providing the OPC-SAT a final opportunity to view the document before adoption.

Spotlight on Science - A regular agenda item at OPC quarterly meetings, Spotlight on Science is a presentation by OPC-SAT members or scientists they recommend on a variety of marine issues important to the state.

Most Recent Spotlight, August 11 OPC Meeting:

Dr. William O'Reilly, Senior Development Engineer, Scripps Institution of Oceanography. Dr. O'Reilly presented on California's Coastal Renewable Energy Resources.

Seafloor and Shoreline Mapping:

Accurate mapping of the coast and seafloor is vital for the sustainable management of California's highly productive coastal and marine resources. The OPC is developing these maps in partnership with state and federal agencies and academic institutions.

- Seafloor data collection in state waters (10m water depth out to 3 nautical miles) is now completed along the outer coast, and progress has been made in ground-truthing the seafloor data, as well as producing final map products. The program's first folio map series is now available in the Santa Barbara region. Staff has continued discussions with resources managers on data acquisition priorities for San Francisco Bay and anticipates data collection will begin in spring 2012.
- A tri-state effort with OR and WA continues to explore ways to map the nearshore coast (depths less than 10m). CSU Monterey Bay has recently completed initial testing of a new jet ski equipped with a multi-beam sonar and LiDAR to collect data in 2 of the central coast marine protected areas. Initial results are very good.
- High-resolution coastal LiDAR and aerial imagery has been collected throughout California in collaboration with ACOE, NOAA, USGS and others. Final map products will be available for the

entire state (from the shoreline to 10 meters elevation) in February 2012 through NOAA's Digital Coast website (<http://www.csc.noaa.gov/digitalcoast/>).

- A team of state and federal agencies are discussing how to merge the offshore seafloor bathymetry with the onshore topography data to make one complete coastal elevation map series (prioritizing sea level rise, storm surge, and flooding analysis). A state-federal partnership is anticipated to begin in late 2011.

Sea Grant Research Program 2011:

California Sea Grant and USC Sea Grant completed their review of proposals submitted for the 2011 round of OPC funding for research projects to improve management decisions affecting the ocean and coastal environment. The recommended research projects address one or more of the research priority issue areas that were developed by resource managers and scientists convened by OST. Proposals were reviewed by scientists and the Natural Resources Agency Sea Grant Advisory Panel in August and September. Descriptions of recommended research projects are included in the December meeting materials.

Innovative Solutions to Coastal and Ocean Challenges

The OPC is a national and international leader in the design and implementation of innovative solutions for ocean and coastal management issues. Below are highlights of a few key projects OPC is working on with its partners.

The MPA Monitoring Enterprise

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The keystone program of the Ocean Science Trust is the Monitoring Enterprise, created in 2007 to lead development of monitoring of the statewide MPA network established under the Marine Life Protection Act (MLPA). Working at the boundary between science and management, the Monitoring Enterprise provides a unique combination of science and policy expertise to develop and test a realistic way to take the pulse of ocean ecosystems and evaluate the performance of the emerging statewide network of MPAs. The Monitoring Enterprise's approach is designed to draw on the rich scientific expertise available throughout the state combined with leveraged funding to deliver a scientifically sound program that is also cost-effective.

- **Implementing the South Coast MPA Baseline Program:** In collaboration with California Sea Grant, Department of Fish & Game and OPC, the Monitoring Enterprise continues to move forward with implementation of a South Coast MPA Baseline Program. The OPC has allocated approximately \$4 million to support 10 individual projects. Over the next three years, teams of researchers, citizen-scientists, and fishermen will survey the South Coast region's coastal and marine habitats,

including human uses, inside and outside MPAs to characterize baseline conditions and document initial changes. Baseline program researchers met for a “kick off” meeting in September, and data collection began this fall. South Coast region MPAs are expected to take effect on January 1, 2012. Project summaries are available on the Monitoring Enterprise website (www.monitoringenterprise.org).

- **Implementing the North Central Coast MPA Baseline Program:** The Monitoring Enterprise continues to oversee implementation of the North Central Coast MPA Baseline Program in collaboration with California Sea Grant, Department of Fish & Game, and OPC. For this region, approximately \$4million was allocated to 16 individual projects. Year two of the monitoring program is drawing to a close and researchers, citizen-scientists, and fishermen are completing baseline data collection in the region. Project summaries are available on the Monitoring Enterprise website and 2010 progress reports can be found on the Sea Grant website at www-csgc.ucsd.edu/RESEARCH/NCCMPA_Summaries_and_Reports.html.
- **Communicating Central Coast MPA Baseline Results:** The Monitoring Enterprise is working closely with the Department of Fish and Game, Central Coast baseline project principal investigators and other partners to develop and communicate MPA baseline results from in California’s Central Coast region. MPAs in the Central Coast region took effect in September, 2007, and OPC-funded baseline monitoring of select ecosystems and human uses commenced the same year. Baseline data are now being analyzed and results will be available late in 2012. These results will provide a benchmark that future MPA performance can be measured against, and a more thorough understanding of the condition of ocean ecosystems to help inform management decisions and prioritize ongoing MPA monitoring.
- **Developing a new online community platform called OceanSpaces:** The Monitoring Enterprise is designing and building a first version of an online community platform to steward and share MPA monitoring data, information and results. An initial round of software development is now complete providing a foundation for launching a collaborative process to foster an online community. The Monitoring Enterprise is preparing to engage the MPA monitoring community in the coming months to solicit early feedback, build community membership and gather new ideas.
- **Linking climate and MPA monitoring:** While climate change is not explicitly incorporated into the goals and objectives of California’s MPAs, future evaluations of MPA performance will occur in the context of a changing climate and associated changing oceanographic environment. Moreover, the monitoring approach developed by the Monitoring Enterprise may provide a framework that can inform the climate change management dialogue. The Monitoring Enterprise is working with climate change experts and other partners to develop an approach that can be used to efficiently and effectively augment MPA monitoring with metrics that can track climate change effects, understand the effects on MPA performance and evaluate climate change adaptation measures.

Collaborative Fisheries Research

At least a third of California’s fisheries are considered “data poor”, meaning there is a lack of essential fishery information (EFI), both biological and socioeconomic, on which to base management decisions. Because sustainable fisheries management is heavily data-dependent, in 2008 the OPC partnered with

Pacific States Marine Fisheries Commission (PSMFC) and the DFG to create a collaborative fisheries research (CFR) organization, focused on forming research partnerships between local fishermen, scientists, and resource managers. These collaborative partnerships would benefit from the expertise of the local fishing communities and increased access to ocean resources, while simultaneously improving data accessibility, and building more trust in fisheries management. CFR West, a program currently housed at PSMFC, is now functional and soliciting its first round of research projects (www.cfr-west.org).

The OPC's investments in CFR were intended to seed the development of a stand-alone CFR organization, as well as provide funding for the initial round of collaborative projects. However, after analyzing various organizational alternatives, it now appears that creating an independent CFR organization would be too challenging in the current fiscal climate. Although the justifications for this are still sound (perhaps even more given state and federal agency budget and staffing cuts), organizational development of CFR West has been suspended, and funding shifted to CFR projects. OPC and CFR West staff will work diligently to highlight the management benefits enabled by these first projects to hopefully attract more funding in the future.

Request for Proposals: Collaborative teams of fishermen, resource managers and scientists are invited to apply for funds to conduct applied research on California fisheries during the 2012–2014 biennium. Letters of intent are due by midnight PST on January 5, 2012. The full RFP can be found at: <http://www-csgc.ucsd.edu/FUNDING/APPLYING/CFR2012.html>

Supporting Our Partners

OPC staff are actively engaged in supporting the work of partner organizations such as the following programs of the Natural Resources Agency.

West Coast Governor's Agreement (WCGA) – Action Coordination Team (ACT) Updates

The West Coast Governors Agreement on Ocean Health was signed on September 18, 2006 and a subsequent Action Plan was released in mid 2008. The Action Plan includes 26 actions, agreed upon by all three governors working in collaboration with federal counterparts in NOAA, DOI, and the USEPA. The WCGA Executive Committee established workgroups (Action Coordination Teams or ACTs) to coordinate and develop work plans for coast-wide implementation of the actions identified in the Action Plan. Ten ACTs are presently in place; eight of which have finalized implementation plans to carry out specific actions in the 2008 plan. Each team includes representatives with subject level expertise from each of the three states, federal, and tribal governments; and in some cases, industry, academia, and NGOs. OPC staff serve on five of the ten ACTs: Seafloor Mapping, Renewable Energy, Sustainable Coastal Communities, Sediment, and Climate

Notable accomplishments of the five ACTs that include OPC participation include:

Renewable Energy: Several areas potentially suitable for wave and tidal energy development occur along the West Coast. All three states need methods to evaluate and manage these types of emerging industries. The Renewable Energy ACT secured \$100,000 to develop an online "Guidebook for Marine Renewable Energy Planning" that will establish preliminary principles for planning at a regional scale, identify baseline information essential for this planning, as well as critical data gaps that could undermine informed and effective decisions. The contractor, Pacific Energy Ventures, has started developing the baseline information chapters and will continue developing this resource throughout 2011.

Sustainable Coastal Communities (SCC): The SCC ACT is presently finishing edits to this section of the WCGA and will begin implementation of the actions identified in the plan. Actions include addressing sustainable fisheries, aquaculture, green ports, clean marinas, recreation and tourism, and economic development along our coast. The final report should be released by early 2012.

Climate Change: The intern hired by the OPC and State Coastal Conservancy utilizing WCGA funds is finalizing work-products developed during his internship which will fully complete one of the goals outlined in the Climate Change Action Plan. His work focused on characterizing anticipated climate change-related impacts and hazards to coastal areas along the West Coast, by identifying ecological changes from sea level rise, changes in storm intensity, and other climate related physical processes.

Regional Sediment Management: The Sediment ACT is implementing the Governors Charge regarding Action 7.4: "Develop regional sediment management plans that increase beneficial use of sediment in an environmentally responsible manner to protect and maintain critical community economic and environmental infrastructure." The final report is available on the WCGA website at <http://westcoastoceans.gov/teams/>.

Thank You Ocean Campaign:

The California Thank You Ocean (TYO) Campaign is a nonprofit partnership supported by the State of California (Natural Resources Agency and OPC), the NOAA Office of National Marine Sanctuaries, and the Ocean Communicators Alliance. Its mission is to raise awareness of the benefits the ocean provides to us and to identify ways each of us can help protect the ocean in our everyday lives.

New Marine Protected Areas web page: The Thank You Ocean campaign recently partnered with the Department of Fish and Game, Department of Parks and Recreation, and Monterey Bay Sanctuary Foundation, to develop the content for an educational web-page on the Marine Protected Areas (MPAs) of California. This page describes what MPAs are, the importance of MPAs, provides opportunities for public involvement, and describes what the state and federal governments are doing to move forward with designing and maintaining the networks of MPAs. This web resource is also available in Spanish. To visit Thank You Ocean's new MPA web page please visit: www.thankyouocean.org/mpas.

Photography Contest Winner Selected: This year, the Thank You Ocean Campaign partnered with the California Coastal Commission to sponsor the 13th annual ocean and coastal photo contest. Contestants were encouraged to submit photographs that reflect the importance that the coast and ocean has for California residents and the role that the Coastal Commission, Natural Resources Agency, and Ocean Protection Council have played in preserving coastal and marine resources. Contest winners were selected by public vote and a panel of judges, and received various prizes donated by the Fairmont

Hotels of California. The winning photos can be found on the contest's website, www.mycoastalphoto.com .
