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

The Executive Director's Report provides an update on OPC outcomes and accomplishments since the previous OPC meeting. This report covers March 2010 to May 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 aquatic invasive species. The OPC coordinates actions across all relevant agencies to improve the development and delivery of successful management solutions.

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, John Dye, Madhu Ahuja –State Lands Commission
Tom Luster, Alison Dettmer – Coastal Commission
Vicki Frey, Steve Ingram, Annie Manji, Bill Paznokas–Department of Fish and Game
Jaclyn Marks – California Public Utilities Commission

The Working Group met April 25, 2011 to discuss current wave and tidal projects, to hear about potential project plans from GreenWave Energy Solutions, and to consider developing state regulatory guidance for test and pilot projects. The working group also discussed existing information resources, such as the West Coast Renewable Energy Planning Guide (see WCGA activities for more information), where agencies, stakeholders, and project applicants can gather information on regulations, data, and environmental studies.

Climate Change:

The Coastal and Ocean Climate Action Team Working Group (CO-CAT Working Group) is comprised of senior level staff from 12 California state agencies with ocean and coastal resource management responsibilities. The CO-CAT Working Group coordinates state agency actions related to adapting to climate change impacts on ocean and coastal resources while supporting implementation of global warming emission reduction programs. The CO-CAT met on April 13, 2011 in Sacramento to:

- Discuss implementation of the OPC sea level rise resolution and identify opportunities for partnering and collaboration.
- Provide updates on key coastal climate change initiatives.

Sea Level Rise Resolution: At the March 11, 2010 OPC meeting, the OPC received comments from the public and adopted a resolution on sea-level rise. This resolution built upon the CO-CAT's recommendations in the Sea-level Rise Interim Guidance Document that was developed based on input from the 16 state agencies and the OPC's Science Advisory Team.

OPC resolution results in actions that will reduce risk from sea level rise by changing state investments in sustainable development: Many state agencies have taken immediate steps to address sea-level rise, including efforts to introduce or incorporate the OPC Resolution such as the recent actions taken by the Strategic Growth Council (SGC). The SGC passed a resolution to incorporate consideration of the risks posed by sea-level rise into all decisions, regarding areas or projects potentially affected by sea-level rise. The SGC also adopted grant program guidelines for the Urban Greening grants and Sustainable Community Planning grants that incorporate consideration of sea-level rise.

National Academies of Science Study: The OPC is one of several state agencies that are collaborating with Oregon, Washington, and federal agencies to fund a study by the National Academies of Science (NAS) that will provide information on local sea-level rise projections. Two OPC-SAT scientists are on the NAS committee, and OPC staff serve on the study's steering committee. The NAS panel met a second time March 28, 2011 in Portland OR. The report is anticipated in early 2012.

Members of CO-CAT:

Below in Table 4 is a list of the CO-CAT members.

Table 4. Coastal and Ocean Climate Action Team Working Group Members

John Andrew—Executive Director, Climate Change Department of Water Resources
Brian Baird—Assistant Secretary for Ocean and Coastal Policy, Natural Resources Agency
Ruth Coleman—Director, California State Parks
Susan Hansch—Chief Deputy Director, California Coastal Commission
Garth Hopkins—Chief, Office of Regional and Interagency Planning Department of Transportation

Amber Mace (Chair)—Executive Director, California Ocean Protection Council
Sonke Mastrup—Deputy Director, Department of Fish and Game
Leonard Robinson—Acting Director, Department of Toxic Substance Control
Sam Schuchat—Executive Officer, State Coastal Conservancy
Frances Spivy-Weber—Vice-Chair, State Water Resources Control Board
Curtis Fossum—Executive Officer, State Lands Commission
Will Travis—Executive Director , San Francisco Bay Conservation and Development Commission

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.

California Coastal and Marine Geospatial Data Information Management System Scoping Study:
The CCMG-WG and OPC staff recently embarked on a scoping study to identify specific tasks and investments in information management systems that the state can make to improve data access, viewing, and sharing. This project originated from comments about challenges to interagency data sharing in the state and is designed to be a major step in addressing this challenge. The will deliver a prioritized accounting of the functional requirements and workflows of state agencies for an ocean and coastal geospatial data information system. This system will maximize the state agencies' capacity to share, access, download and view these data. The scoping study will be conducted over the next six months (April – Sept 2011) by contractor Kearns & West/UC Santa Barbara.

OPC Strategic Plan Update:

OPC staff are updating the OPC's five-year strategic plan. Members of the OPC Steering Committee, the Ocean Science Trust, and OPC Science Advisory Team are assisting in developing goal statements and action plans for four focal areas:

- Climate Change
- Sustainable Fisheries
- Land-Sea Interface
- Industrial Uses of the Ocean

Coastal and marine spatial planning is being analyzed on a parallel track as a cross-cutting tool, and will be used to inform strategic plan actions. A draft strategic plan will be presented for public comment at the August 2011 OPC meeting and the OPC will hold public workshops during this comment period. For details, see the updated OPC website.

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. The 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, the OST works directly alongside the OPC and in coordination with state agencies that have coastal and ocean resource management mandates.

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.

Plastic Debris in the California Marine Ecosystem: Abundance, Sources, Pathways, Impacts, Solutions, and Areas of Future Research, Final Report: 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 an assessment of the multitude of threats from plastic packaging and products that ultimately reside in the marine environment, and potential solutions. The OST since partnered with USC Sea Grant to undertake a revision and update. A draft of the report has been produced, and will soon undergo external peer review. Final release will be in June 2011.

The OPC Science Advisory Team (OPC-SAT)

The 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. The OST also coordinates semi-annual meetings between the OPC-SAT and the OPC management team. The most recent meeting was held on January 31, 2011 in Oakland. The OST anticipates the next meeting sometime in September 2011. Since March, there have been developments in coordination of peer reviews.

Coordination of Peer Reviews:

1) Economic Costs of Sea-Level Rise to California Beach Communities: The OPC submitted for review a report outlining the economic costs of sea-level rise to communities along the California Coast. At this time, all peer review comments have been compiled, synthesized and sent to the Principle Investigator(s) to address.

2) The Aquaculture Programmatic Environmental Impact Report (PEIR) prepared for the California Department of Fish and Game: The Aquaculture PEIR is being prepared for the California Department of Fish and Game to identify potential environmental impacts of an expanded aquaculture industry along the California coast.

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 to 3 nm) is nearly complete, with completion anticipated by mid-2011. Considerable progress was made in 2010 on ground-truthing the seafloor data. The new focus for 2011 will be determining a data collection strategy for San Francisco Bay.
- Experiments with different technologies in the nearshore continue in coordination with OR and WA. CSU Monterey Bay is leading an effort in CA to attach a sonar system onto a jet ski to collect data in the nearshore of selected marine protected areas.
- High-resolution coastal LiDAR and aerial imagery is being collected throughout California in collaboration with ACOE, NOAA, USGS and others. OPC-sponsored data collection was completed in December 2010, and those data are being processed. OPC data will be combined with federal datasets and be delivered to the public in late 2011.
- A team of state and federal agencies are discussing product development from these data sets (with sea level rise analysis being a priority). Merging the onshore elevation data with the offshore seafloor bathymetry data will be a first priority.

Ecological Habitat Mapping: The OPC, in collaboration with NOAA and the Ocean Science Trust, hosted a four part webinar series and workshop in March of 2011, on the Coastal and Marine Ecological Classification Standard (CMECS), a national effort to create a marine ecological classification scheme developed through a partnership between NOAA and NatureServe. CMECS provides a structure for developing and synthesizing data so that ecological units can be identified, characterized, and mapped in a standard way and at a variety of scales. The OPC is evaluating the potential of CMECS to address coastal and marine management needs in California.

Ocean Observing:

The Coastal Ocean Currents Monitoring Program (COCMP) is a collaborative statewide program to monitor and map the surface currents off the coast of California. This unprecedented program is a partnership of academic and government institutions working with industry and non-governmental organizations to design a real time monitoring system along the state's 1,100 miles of coastline.

The implementation phase of COCMP will end in May, 2011, with a network of more than 50 shore-based HF Radar (high frequency radar) operating along the coast. During the past five years, COCMP

data have been used in oil spill response, wastewater discharge monitoring, beach water quality monitoring, plume tracking at urban rivers during storm events, search and rescue efforts, climate change analysis, harmful algal bloom (HAB) tracking and forecasting, and coastal inundation modeling.

OPC partners in the COCMP are the Regional Associations (RAs; the Southern CA Coastal Ocean Observing System and the Central and Northern Coastal Ocean Observing System). The RAs and OPC staff are developing operational funding for COCMP at the state and federal level. ***To date, no operational funding has been found***. Additional federal funding is unlikely before 2012. In the absence of new operational funding, the RAs will be unable to retain trained staff and individual installations will begin to be removed. The consequences for California will be immediate (e.g. will not be able to track discharge plumes from outfalls and manage beach water quality) to long-term (e.g. cannot effectively evaluate the impacts of climate change on critical coastal habitats). As was the case in the Gulf of Mexico, in the event of an oil spill, California will not be able to respond effectively to minimize impacts.

A consultant report evaluating the effective and efficient use of ocean observing data for ocean management (the Synthesis of Coastal Ocean Observing Products) will be released for review in spring of 2011.

Sea Grant Research Program 2011:

California Sea Grant and USC Sea Grant recently reviewed preliminary proposals submitted for the 2011 round of OPC funding for research projects to improve management decisions affecting the ocean and coastal environment. Research proposals must address one of the research priority issue areas that were developed by resource managers and scientists convened by OST. Preliminary proposals were reviewed by scientists and the Natural Resources Agency Sea Grant Advisory Panel in April, and several full proposals were requested which will undergo subsequent scientific and state agency review. Final recommendations for research project funding will be presented for OPC concurrence at the December meeting prior to award of the subgrants.

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

One of the keystone programs of the Ocean Science Trust is the Marine Protected Areas (MPA) Monitoring Enterprise, created in 2007 to lead development of monitoring of the statewide MPA network established under the Marine Life Protection Act (MLPA). This program is developing a ground-breaking approach for identifying monitoring priorities that relies upon stakeholder input as well as scientific understanding. The MPA Monitoring Enterprise uses future management decisions as the starting place for setting monitoring priorities, and it relies upon the rich scientific expertise available

throughout the state combined with leveraged funding to deliver a scientifically sound program that is also cost-effective.

- **Planning South Coast MPA Monitoring:** The Monitoring Enterprise is continuing the process to develop a South Coast MPA Monitoring Plan to guide long-term monitoring of the regional MPA network. On April 27, the draft plan was released for public comment. Written comments on the Draft Plan are requested by 5:00pm PDT on Friday, May 27th. Comments on all aspects of the draft plan are welcomed; the plan can be downloaded from the Monitoring Enterprise website (www.monitoringenterprise.org) and has also been distributed in hard copy to DFG offices and libraries in the region.
- **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 development of a South Coast MPA Baseline Program. The OPC has allocated approximately $4 million to support the Baseline Program in this region. On February 10, Sea Grant released a Request for Proposals (RFP) and proposals were due on April 7, 2011. Proposals submitted in response to the RFP are currently undergoing peer-review; announcement of awards is expected in July 2011

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 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.

Sediment: 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/. In addition, the ACT was recently awarded funds from the WCGA for a May 9, 2011 Coastal Sediment Management Workshop in Portland to share case studies and compile lessons learned on regional sediment management.

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. The campaign's 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. In 2008, the Thank You Ocean Campaign received the Coastal America Award, the highest award from the White House, for its ocean and coastal initiatives. The Thank You Ocean campaign is increasing outreach and education through its website and social media to engage Californians on four important issues threatening the State: Climate Change, Marine Debris, Water Pollution, and Marine Life Decline. Secretary Laird was featured in the two most recent podcasts produced by the TYO campaign. He discusses the every-day changes that Californians can make to have a positive impact on ocean health, as well as issues regarding sea-level rise.