CALIFORNIA OCEAN PROTECTION COUNCIL

Item 2

April 26, 2017

Dear Council Members and Partners:

On December 12, 2016, I began my role as Ocean Protection Council's (OPC) new Deputy Director and approximately two weeks later took my place as the interim Executive Director while Deborah Halberstadt is on maternity leave. The past 4.5 months have been incredibly rewarding and I'm grateful for the opportunity to help OPC take bold, visionary and proactive actions to protect marine resources in California. I'd like to extend my gratitude to Secretary Laird and the entire OPC staff for their support and tireless work ethic; they have set a truly high bar for public service in the state.

Since our last Council meeting in December, the Trump Administration released a high-level plan for federal spending in 2018. While this "skinny budget" is still very much a draft, it includes proposed funding cuts that would significantly impact federal programs and grants focused on addressing climate change and coastal and ocean protection, including efforts that support ongoing resource management, research, monitoring and education.

OPC staff is tracking the federal budget process closely. We will focus on specific programs that are critical to protecting the coast and ocean and, in the coming months, will likely solicit the Council's approval in sending letters to state and federal leadership highlighting the value of these programs. OPC staff remains committed to continued collaboration with our federal partners and will look for opportunities to fill in critical funding gaps for research, monitoring and restoration, as well as other ways to leverage our work.

California continues to display ambitious leadership and is doubling-down on efforts to protect the environment and combat climate change. We have a renewed sense of purpose to fight for our values, for the people and places that define California's identify and drive California's economy. The staff at OPC remains dedicated to ensuring healthy and thriving ocean ecosystems for current and future generations and providing a model for action across the world. The attached report highlights on our work on marine pollution, climate change, marine protected areas, fisheries, and emerging issues since the December Council meeting; we look forward to continued dialogue and direction as we begin to identify our strategic priorities for 2018 – 2023. Thank you for your leadership and dedication on the Council.

Sincerely,

Jenn Eckerle

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California Ocean Protection Council (OPC)
Executive Director's Report
April 26, 2017

The Executive Director's Report provides an update on OPC outcomes and accomplishments since the previous OPC meeting. This report covers October 2016 – April 2017[1].

Water Quality, Supply and Infrastructure Improvement Act of 2014 (Proposition 1): On June 29, 2016, the Council approved $7,414,534 in Proposition 1 funds for eight projects to improve water quality through pollution source reduction and habitat restoration/enhancement. Staff have finalized six grant agreements, with the remaining two grant agreements close to being finalized with the grantees.

OPC had originally planned to solicit projects for Round 2 of Proposition 1 funding in May 2017; however, staffing capacity issues have resulted in a revised timeline. Staff now anticipates bringing updated Proposition 1 grant guidelines for Council approval in fall 2017 with project solicitation for Round 2 funding anticipated in 2018. The available funding for the second round of Proposition 1 funding is expected to be $11.2 million, with an additional allocation of $9.3 million anticipated for the 2019/2020 fiscal year.

Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Proposition 84): On October 17, 2016, the Council approved $6,024,956 in Proposition 84 funds for 16 projects supporting OPC's priority areas of climate change, marine protected areas, marine pollution and sustainable fisheries. Staff have finalized 10 grant agreements, with the remaining 6 grants close to being finalized with the grantees. There is approximately $18 million remaining in Proposition 84 funds, $5.5 million of which the Council has already set aside to fund fisheries and marine protected area projects. Staff is considering establishing a targeted competitive process for the remaining $12.5 million and anticipates bringing another round of projects to the Council throughout 2018.

[1]The present ED report contains descriptions of OPC grants or contracts that have closed since the last OPC meeting. Each grant or contract is described under the header of the OPC strategic plan issue the work is intended to address.

Staffing: In December 2016, Amy Vierra left the OPC. We wish Amy the best in her new endeavors.

With Amy's departure, OPC has posted a job announcement for an Environmental Scientist to continue administering the Proposition 1 grant program. Staff anticipates filling this position by May 2017. The job announcement can be found at www.opc.ca.gov.

In December 2016, Jenn Eckerle began her role as OPC's new Deputy Director. Jenn has over fifteen years of coast and ocean management and policy experience in California. Before joining OPC, she worked as an ocean policy analyst for the Natural Resources Defense Council's West Coast ocean program and as a coastal program analyst for the San Francisco Bay Conservation and Development Commission and the California Coastal Commission. Jenn has a Master's Degree in Marine Biology from the Florida Institute of Technology and a Bachelor's Degree in Biology from the University of Vermont.

In January 2017, we welcomed Paige Berube to our staff as the new Fisheries Program Manager. Paige has worked with the Sustainable Fisheries Group at UC Santa Barbara, and her master's thesis group project, in partnership with NOAA and The Nature Conservancy, focused on the California commercial swordfish fishery. Paige was previously a Sea Grant Fellow at OPC working in our climate program and has been instrumental in helping shepherd our sea-level rise work forward over the last year and a half. Paige earned a Master's Degree in Environmental Science and Management from the Bren School at UC Santa Barbara and earned a Bachelor's Degree in Environmental Geoscience from Boston College.

In February and March 2017, OPC welcomed two new Sea Grant Fellows, Sara Briley and Tova Handelman. Sara Briley comes to us from Orange County Coastkeeper where she led native oyster and eelgrass restoration efforts as their Marine Restoration Director. Sara has a Master's Degree in Biology from California State University Fullerton and is supporting work in our climate program on sea-level rise and ocean acidification. Tova comes to OPC from Heal the Bay where she was the Coastal Resources Coordinator, working on the California plastic bag ban campaign and citizen science programs such as MPA Watch. She has a Master's Degree from the Bren School of Environmental Science & Management, where she studied coastal marine resources management and science communication. Tova is supporting our marine protected areas program.

Strategic Plan Issue Area 1: Science-Based Decision-making

Science-based decision-making is integrated into all of our priority program areas; please see below for more details.

Strategic Plan Issue Area 2: Climate Change

Ocean acidification and hypoxia: At the October 2016 meeting, the Council approved six projects for a total of approximately $3.1 million that begin to implement the recommendations and actions of the West Coast Ocean Acidification and Hypoxia (OAH) Science Panel. The grant agreements for all of these projects have been approved and work is beginning.

Immediately following the October meeting, on behalf of OPC, Jenn Phillips, co-hosted a workshop with Stanford University and the Southern California Coastal Water Research Project (SCCWRP) outlining the process by which state managers and scientists can work together to revise water quality criteria for OAH. This workshop was organized in response to the West Coast Ocean Acidification and Hypoxia Science Panel's Recommendation 3 (Revise water quality criteria), and to do so 25 experts were convened at Stanford University on October 17–18, 2016 to chart a path toward development of ocean acidification (OA) water quality goals. Participants were asked to help develop goals that in the short term could be used as management tools for defining monitoring needs and for interpreting modeling and monitoring output, and in the longer term could form the foundation for water quality criteria. A workshop summary can be found here: OA Uncommon Dialogue.

In addition to this workshop, OPC staff have participated in, led and informed multi-stakeholder dialogues to advance the many pathways to better understand and respond to ocean acidification and hypoxia. This includes conversations around ocean acidification model enhancement, monitoring and data availability, seagrasses and ocean acidification mitigation, and international agreements and partnership to spur commensurate funding, research, and awareness of changing ocean conditions and climate impacts on our oceans. For more information on OPC's work around ocean acidification and hypoxia at the local, state, regional, and international scale, please see the staff memo and presentation presented at the April 26, 2017 meeting.

Sea Level Rise: The OPC and the California Natural Resources Agency, in collaboration with the Governor's Office of Planning and Research, California Energy Commission, and the California Ocean Science Trust, are in the process of updating the State Sea-level Rise Guidance Document. In October, the Council approved funding to the California Ocean Science Trust,

which has been charged with leading the scientific component of the update, to convene an *OPC Science Advisory Team Working Group* to ensure that the state's guidance is based on the best available science. For more information, please see Agenda Items 6 and 7 and visit http://www.opc.ca.gov/climate-change/updating-californias-sea-level-rise-guidance/.

The OPC has entered into an agreement with UC Berkeley's Climate Readiness Institute through General Fund allocation associated with implementation of AB 2516 (Gordon, 2014: Sea-level rise planning: database). This project will develop an interactive sea-level rise database, a library of online resources developed from information gathered at the local, regional and state level, and will bolster existing online state resources for sea-level rise planning. Concurrently, OPC surveyed state agencies, ports, airports and utilities on the status of sea-level rise planning activities in March and April of this year, pursuant to AB 2516, to update the current version of the Sea-level Rise Planning Database.

Safeguarding California Plan: 2017 Update: The Natural Resources Agency is preparing a 2017 update to the Safeguarding California Plan, which is the state's climate change adaptation strategy. Per Executive Order B-30-15, a draft update to Safeguarding California must be completed by January 2017, with the final document completed by July 2017. A draft of the plan for public comment will be released in late April or early May, beginning a lengthy engagement process to strengthen it by working with communities across the state. Safeguarding is organized into several sectors, and OPC is the lead for the Ocean & Coastal Ecosystems and Resources sector and has worked closely with the Coastal and Ocean Climate Action Team (CO-CAT) to solicit feedback and make sure our sector is comprehensive and incorporates work that is occurring across many coastal and ocean state agencies. For more information, see http://resources.ca.gov/climate/safeguarding/.

California 4th Climate Assessment: Currently underway, the Fourth Climate Change Assessment is the first inter-agency effort to implement a substantial portion of California's Climate Change Research Plan. The Resources Agency, in collaboration with the Governor's Office of Planning and Research and the Climate Action Team (CAT) Research Working Group, has developed a proposed portfolio of research projects for California's Fourth Climate Change Assessment. This assessment is being supported through two funding sources, one managed by the California Energy Commission (CEC) and another by the California Natural Resources Agency. OPC staff serves as a technical manager on one of the Resources Agency projects related to ocean acidification, ocean temperature, and hypoxia and, with the support of the OPC-SAT, is leading the regional assessment focused on ocean and coasts that will be paired with the other regional assessments of the Fourth Assessment. These regional assessments will support, bolster, and synthesize the funded research projects most relevant to specific areas of the state.

Closed grants within Climate Change

Local Coastal Program grant program: City of Santa Monica (CNRA Agreement #C0300600): This grant with the City of Santa Monica resulted in the development of a shoreline change and coastal erosion model for Los Angeles County, as part of the *AdaptLA: Coastal Impacts Planning for the Los Angeles Region* project. The City of Santa Monica collaborated with 11 participating local governments, as well as with the University of Southern California (USC) Sea Grant Program, the Los Angeles Regional Collaborative on Climate Action and Sustainability (LARC); the CA State Coastal Conservancy; the Santa Monica Bay Restoration Commission (SMBRC) and the United States Geological Survey. Deliverables include GIS-based maps which be used by the cities and county departments for analyzing Local Coastal Programs (LCPs) and coastal development permits (CDPs) in light of sea-level rise and coastal storm events.

Local Coastal Program grant program: County of Monterey (CNRA Agreement #C0300700): This grant to the County of Monterey resulted in local maps of climate change impacts from combined fluvial and coastal hazards (rainfall-runoff events, and extreme tide and wave events) for multiple scenarios of future climate change conditions, incorporating the Salinas River and Soquel Creek fluvial systems. For Monterey and Santa Cruz counties, with a focus on the Capitola and Moss Landing communities, vulnerabilities were assessed and adaption strategies were identified. The Center for Ocean Solutions (Center) partnered with the counties through this project to map and assess the role of natural habitats along the coast of Monterey Bay in providing coastal protection, and to evaluate existing and potential land use policy strategies that prioritize nature-based climate adaptation.

Local Coastal Program grant program: City of Eureka (CNRA Agreement # C0300200): This grant to the City of Eureka resulted in a risk analysis report, as well as an adaptation planning report which developed and prioritized adaptation strategies for high priority assets in the city based on projected impacts and vulnerabilities from rising sea levels and shoreline change. These adaptation strategies will be incorporated into the City of Eureka's Land Use Plan, a component of the Local Coastal Program (LCP), which is being updated as part of the City's 2040 General Plan Update.

Strategic Plan Issue Area 3: Sustainable Fisheries and Marine Ecosystems

MLMA Amendment Information Gathering Projects: The California Department of Fish and Wildlife (CDFW) and partners are in the process of amending the Marine Life Management Act (MLMA) Master Plan for fisheries. The OPC is supporting various projects in the Information Gathering Phase in 2016 to develop tools and recommendations to be considered during the

Amendment Phase (late 2016-2017). The OPC is supporting Ocean Science Trust in the following projects: Climate Change and Fisheries, Ecological Risk Assessment, and Peer Review and California fisheries management. An OPC-SAT working group report that identifies future climate change scenarios and potential management approaches and tools to consider with fisheries in a changing climate will be available this spring. The Ecological Risk Assessment is a tool that will assesses the risk that a fishery may or may not have related to bycatch species, habitats, and target species. This project plans share the pilot results and solicit feedback from members of the fishing community through a series of workshops later this summer. The peer review project provides guidance and recommendations to CDFW on peer review best practices in order to support the development of a rigorous fisheries peer review program for the State.

Dungeness Crab Task Force: The OPC has supported the establishment and administration of the Dungeness Crab Task Force (DCTF), in accordance with SB 1690 (Wiggins, 2008) and SB 369 (Evans, 2011). SB 369 states that the OPC shall enter into an agreement for the development and administration of a DCTF. OPC has partnered with Strategic Earth Consulting since early 2012 through March 31, 2017, on the administration of the DCTF. Per SB 369 a final report of the DCTF, which provides recommendations directed to the Joint Committee on Fisheries and Aquaculture, the CDFW, and the Fish and Game Commission, to inform future Dungeness crab fishery management actions was released on January 13, 2017. Short-term funding has been provided by The Nature Conservancy for administration of the DCTF through the end of June 2017. The DCTF was envisioned to continue through 2019, when certain provisions in SB 369 would be repealed. The DCTF is currently considering options for the composition of the DCTF or another industry-representative body beyond 2019 when the DCTF is set to sunset per Fish and Game Code 8276.4, and the CDFW is exploring their ability to utilize the Dungeness crab trap tag account to allocate funding for administration of the DCTF for fiscal year 2017-2018, beginning July 1, 2017. During an October 2016 DCTF meeting, the DCTF recommended the account's excess funds be utilized to support administration of the DCTF until a long-term solution could be established legislatively. For more information and details on other priority activities and meeting summaries, visit the DCTF webpage: http://www.opc.ca.gov/2009/04/dungeness-crab-task-force/.

Harmful Algal Blooms (HABs): In response to recent HAB events and fishery closures, OPC directed OST to establish an OPC-SAT working group on HABs and the impact on California fisheries and developed an interagency task force made up of Department of Fish and Wildlife, Department of Public Health, Office of Environmental Health Hazard Assessment, Fish and Game Commission, and the Ocean Protection Council. This interagency task force has worked together to respond to HAB events of 2015-16 in a timely and thoughtful way and ensure that the most up to date scientific information is prepared in a way that advances and facilitates

sound decisions and is funneled to the right people as our state agency leaders work to open/close a fishery and test our seafood in an expedient and transparent way.

As you all know and have seen, the Working Group developed a Frequently Asked Questions (FAQ) document in August 2016 which functions as a starting place regarding California's practices for harmful algal bloom (HAB) monitoring and management, and seafood toxin sampling and testing protocols. The Working Group also developed a scientific guidance document, HABs and California Fisheries, in October 2016 to guide seafood sampling efforts, in light of harmful algal blooms, and to help us better respond to HAB events in the future. The Working Group plans to take on a longer-term project to examine the impacts of domoic acid on the marine ecosystems along the coast of California. What this looks like is still being scoped, but we want it to be an open, transparent process – and provide real utility for many years to come whatever the conditions and events may look like.

The second phase of the OPC-SAT working group will focus on an analysis and synthesis of long term impacts of domoic acid in the marine environment. This document will provide state managers information about needed investments to better predict and plan for future HAB events.

Once-through Cooling Interim Mitigation Program Update

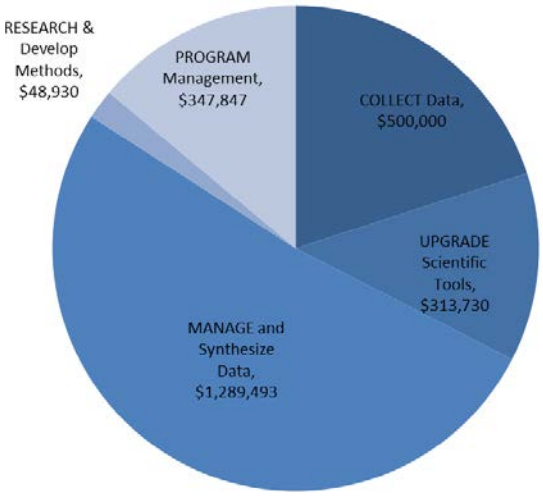
The Once-Through-Cooling (OTC) Policy states that it is State Water Board's preference that "funding [be] provided to the California Coastal Conservancy, working with the California Ocean Protection Council, for mitigation projects directed toward increases in marine life associated with the State's Marine Protected Areas in the geographic region of the facility." As the successor Agency to the Coastal Conservancy in housing the Ocean Protection Council the California Natural Resources Agency and the State Water Resources Control Board (Water Board) have completed a Memorandum of Understanding[2] that designates up to $5.4 million dollars annually to support the MPA Managment Program. The OPC and Ocean Science Trust have created a white paper[3] that describes the specific areas of the MPA Management Program that are most appropriate for these funds including outreach to improve compliance, improved enforcement and monitoring to determine MPA effects related to OTC impacts. OPC, in collaboration with the MPA Statewide Leadership, is beginning a process to develop mitigation project guideline critera which will include a process for public input which expected to be released by the end of 2017.

[2] http://www.opc.ca.gov/webmaster/_media_library/2016/10/Compressed_Acceptance-Use-of-Interim-Mitigation-Funds-for-the-Once-Through-Coolin.pdf

[3] http://www.opc.ca.gov/webmaster/_media_library/2016/10/FINALScience_PolicyFramework_LinkingMPAstoOTCmitigation_8.30.16.pdf

State Water Resources Control Board (Water Board) staff have determined that eight of the ten power plants subject to the Water Board's Once-Through-Cooling Policy will have their mitigation payments calculated based on the default method of using the average cost estimate for entrainment of $4.60 per million gallons. For the calculation of the mitigation payment for October 2015 through September 2016, Water Board staff will use the total volume data that was provided by the owners or operators and will independently review the total volume data against the days of operation and flow data submitted by each Power Plant Operator through their National Pollutant Discharge Elimination System (NPDES) Permit Monitoring requirements. The NPDES monitoring data is submitted with a declaration, under penalty of perjury, that it is true and correct. The remaining two power plants (Diablo Canyon Nuclear Power Plant and Encina Power Plant) have submitted site-specific data and request that mitigation payments be calculated based on a site-specific habitat production forgone (HPF) cost of entrainment. Draft determinations to approve the mitigation fees for all ten power plants will likely be released for public review by the end of May 2017. OPC staff expects to begin receiving mitigation funds by Fall 2017.

MPA Monitoring Program: Spending for the FY 16/17 General Fund allocation to support the MPA Monitoring Program is in the final stages. The core management team (CDFW, OPC, and Ocean Science Trust), in consultation with the MPA Statewide Leadership Team and other partners, focused spending on supporting the development of the MPA Monitoring Action Plan (expected mid-2018) expanding collaborative monitoring statewide and beginning the build out of a comprehensive information management system (IMS) for MPA-related data. The IMS will include all MPA Monitoring Program-related data, a map visualization interface, and the ability to harvest and display other relevant data from existing scientific sampling programs to provide a scientifically robust tool to assess the performance of the MPA Network at meeting the goals of the Marine Life Protection Act. As illustrated below, the focus of spending shifted from FY 15/16 to 16/17, concentrating recent spending on synthesizing and aggregating data from the baseline monitoring which is now complete statewide and rolling out an IMS. The IMS implementation plan was developed by an independent big data expert. The analysis was completed in close collaboration with the core management team and building off previous work by the Ocean Science Trust assessing needs and developing a conceptual design. The report, which was funded by the Resource Legacy Fund, can be found here.



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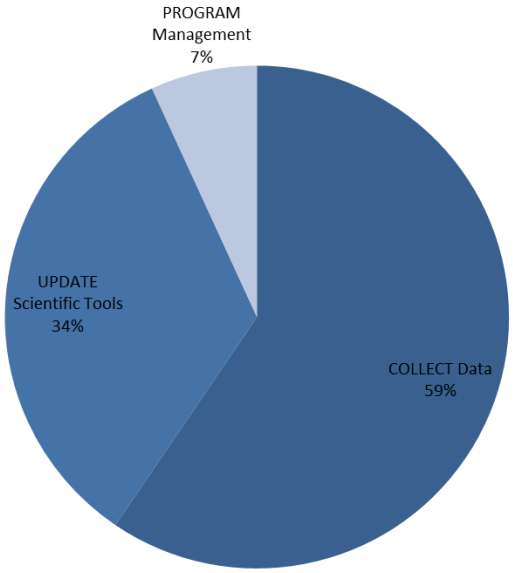

FY 15/16

Work has already begun on developing requests for proposals and/or qualifications for the FY 17/18 allocation that will likely include the development of socioeconomic indicators for long-term monitoring, management of the development and peer review of the MPA Action Plan, integrated analyses using existing datasets across disciplines and geography, method comparisons to identify the most efficient methods for long-term monitoring, and data quality assessments of citizen science projects. Release of the requests is expected in the early fall of 2017.

MPA Statewide Leadership Team: The MPA Statewide Leadership Working Group met on March 8 to get an update on the on-going efforts to reach out to tribes across the state to discuss a process for adding regional tribal representation to the Leadership Team and complete an assessment of progress on the Work Plan. Significant progress has been made, and the Team discussed ways to continue to support task completion, which can be viewed here. The Executive Team of the Leadership Team met for the MPA Milestones Meeting on March 15 in Sacramento. In addition to the MPA Monitoring Program accomplishments above, highlights included progress updates on the second round of the statewide MPA signage project, updates on the MPA Collaborative Network Projects and Charter Workshop (see Staff Memo Item 8a), tribal take in MPAs, and notable enforcement cases. The next Milestones Meeting will be held in September of 2017.

South Coast State of the Region Report and MPA Management Program Status Update: The California Department of Fish and Wildlife, Ocean Protection Council, and Ocean Science Trust, held a series of meetings across the South Coast to share the State of the California South

Coast which describes the conditions present at the time of implementation of the MPAs in that region. This information will be used to track future changes and assess the performance of the MPA Network at meeting the goals of the Marine Life Protection Act. Almost 300 members of the South Coast ocean community participated. Over the coming weeks, a summary of key themes discussed across the events and presentations given at each gathering will be posted on OceanSpaces. The California Department of Fish and Wildlife will present the initial five-year management review at the Fish and Game Commission meeting on April 27.

Strategic Plan Issue Area 4: Coastal and Ocean Impacts from Land-Based Sources

Marine Pollution Program: In October 2016, the OPC approved funding for three projects under the marine pollution program: updating and expanding the California Litter Strategy to provide a road map of projects and priority actions for the next several years, implementation of the Dungeness Crab Fishing Gear Working Group's projects, and "unpackaging" a community to reduce a community's reliance on single-use disposable items. Since the October meeting, the grant agreements for all three of the projects have been approved and work has begun.

The first stakeholder workshop for updating the California Litter Strategy is scheduled for May 2-3, 2017. This workshop will give state and federal agencies, conservation organizations, and industry an opportunity to develop projects that will address the ocean litter problem. A second workshop to allow participants to commit to proposed projects is anticipated for the fall of 2017.

OPC staff hosted a workshop to develop a conceptual model for trash monitoring methods on April 18th and 19th. The workshop included staff from the State Water Resources Control Board (Water Board), the Regional Water Boards, the Southern California Coastal Water Research Project, the San Francisco Estuary Institute, stormwater agencies, conservation organizations and environmental consulting firms that have performed trash monitoring research. The workshop enabled participants to discuss current challenges in trash monitoring, and provide advice for future trash monitoring projects to consider during project design and scoping. The workshop was intended to provide a starting point for the proposed project to research, develop, and field test trash monitoring methods, which is being considered by the Council for funding in Agenda Item #5 at this meeting.

Strategic Plan Issue Area 5: Existing and Emerging Ocean Uses

Intergovernmental Marine Renewable Energy Task Force: In October 2016, the U.S. Department of Interior's Bureau of Ocean Energy Management (BOEM) and the State of California convened the BOEM California Intergovernmental Renewable Energy Task Force

(Task Force), a partnership of federal, state, local agencies and tribal governments, as a forum to provide critical information to the decision-making process for planning future offshore renewable energy development in federal waters offshore California. The OPC has been participating in Task Force efforts along with other state agencies under the Natural Resources umbrella including: the California Energy Commission, the California Department of Fish and Wildlife, the California Coastal Commission, and the State Lands Commission. In particular, we have been assisting with stakeholder engagement efforts, including outreach to fishermen, local elected officials, scientists and environmental groups. The OPC is also helping identify relevant science and data sets to ensure that marine resources and human uses are integrated into planning efforts. The next Task Force meeting is scheduled for July 13, 2017, tentatively in Santa Barbara. Last, by the end of 2017, per a Memorandum of Understanding with the Department of Interior, the OPC is tasked with updating the permitting guidance published by the California Marine Renewable Energy Working Group in 2011.