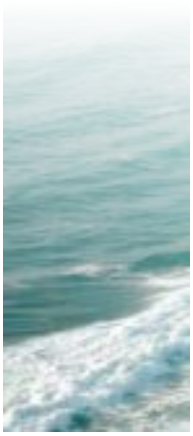
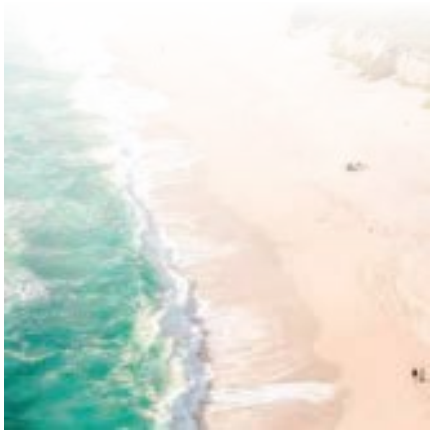
OCEAN PROTECTION COUNCIL

EXECUTIVE DIRECTOR'S REPORT

February 14 - May 23, 2019

Providing an update on outcomes and accomplishments since the previous OPC Meeting.





FUNDING

All funding opportunities are designed to address the priority issue areas identified in OPC's Strategic Plan.

Water Quality, Supply and Infrastructure Improvement Act of 2014 (Proposition 1)
The Proposition 1 grant program's third grant round closed in March 2019 and 11 eligible funding proposals were received. The Review Committee began the evaluation process on May 15, 2019. Top ranked projects will receive site visits this summer, and OPC plans to make project funding recommendations for Council members' consideration and possible approval at the November 2019 OPC meeting.

Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Proposition 84)
Projects funded with Proposition 84 funds through the Executive Director's delegated authority (see section below for more details), along with projects recommended for approval at the May 23, 2019 OPC meeting in Items 3d and 4, total approximately $928,000. If approved, these projects will receive OPC's final disbursements of Proposition 84 funds. Since the bond was passed in 2006, OPC has disbursed close to $85 million to support projects that enhance coastal and ocean ecosystem research, monitoring and restoration.

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California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access for All Act of 2018 (Proposition 68)

OPC's Proposition 68 Grant Guidelines are recommended for approval in Item 5 of the meeting agenda. If the Council approves the Guidelines, OPC staff will begin releasing solicitations for projects addressing plastic pollution, ocean acidification and sea-level rise adaptation, kelp forest ecosystem resilience, and marine renewable energy development. OPC received a $10 million appropriation from Chapter 9 of Proposition 68 and a $10 million appropriation from Chapter 10 of Proposition 68 in the fiscal year 2018/2019 budget. OPC staff anticipate the next round of Prop 68 funds for OPC to be appropriated in fiscal year 2020/2021.

General Fund to Address Whale and Sea Turtle Entanglement in Fishing Gear

The Budget Act of 2018 included a $7.5 million General Fund appropriation to OPC to address whale and sea turtle entanglement, with $1 million of the total amount directed to support sea lion and seal stranding rescue and rehabilitation activities. At the October 25, 2018 OPC meeting, the Council approved disbursement of $1 million to the UC Davis Wildlife Health Center to fund California Marine Mammal Stranding Network member activities for sea lion and seal rescue and rehabilitation. At that meeting, the Council also approved a $170,000 project to deploy solar loggers (solar-power vessel tracking systems) on Dungeness crab commercial fishing and whale watching vessels to collect fishing activity and whale concentration data. This information will inform the Risk Assessment and Mitigation Program (RAMP) of the California Dungeness Crab Fishing Gear Working Group to reduce the risk of entanglement in fishing gear.

Additionally, in September 2018, SB 1017 (Allen) was signed into law to phase out drift gillnets in the shark and swordfish fishery. SB 1017 directs OPC to provide $1 million of the $7.5 million appropriation to fund the transition program established by the California Department of Fish and Wildlife (CDFW) required per SB 1017. OPC staff anticipates bringing this project to the Council for consideration and approval once CDFW has finalized its agreement with the fiscal agent who will administer the transition program.

Taking into account the above projects, OPC has approximately $5.3 million of General Fund monies remaining to address whale and sea turtle entanglement; OPC staff is currently developing an investment plan - in close coordination with CDFW, the National Marine Fisheries Service (NMFS) and stakeholders - to ensure strategic and impactful deployment of the remaining funds.

Humback whales are frequent visitors to the California coast. Photo credit: NOAA, MMHSRP permit 18786

PROJECTS APPROVED BY EXECUTIVE DIRECTOR'S DELEGATED AUTHORITY

This section provides a summary of projects approved between February and May 2019 through the OPC Executive Director's delegated authority.

Grantee	Project	Amount	Description
California Ocean Science Trust	Ocean Acidification and Hypoxia Task Force	$156,935	This project will support a two-year extension of the Ocean Acidification and Hypoxia Science Task Force through 2021.
Natural Resources Defense Council	Applying the Data-Limited Methods Toolkit to State-Managed Priority Fisheries	$137,480	This project will apply a computer program that models fishery management strategies, to eight high priority state-managed fisheries in partnership with CDFW, and provide accompanying trainings and workshops to fishery managers.
San Francisco Estuary Institute	Microplastic Standardization of Methods and Reporting Project	$50,000	This project will develop data infrastructure in the primary state water quality database for microplastics and develop a half day webinar on implementation of standardized methods for microplastic data collection, analysis, categorization, and interpretation.
Reef Check Foundation	Reef Check Data Infrastructure Rebuild	$155,250	This project will rebuild Reef Check's outdated and nonfunctioning data infrastructure, providing a state-of-the-art system that will accommodate new data types and support compelling data analytics and visualizations for multiple user audiences. This is a key need for the state, which relies heavily on Reef Check data for MPA management decisions.

(Projects Approved by Executive Director's Delegated Authority, continued)			
Grantee	**Project**	**Amount**	**Description**
California State University Monterey Bay	California Undersea Imagery Archive	$25,000 amendment to existing grant; $150,000 new grant	This project will allow for continued maintenance of the undersea imagery archive, including digitization of existing physical tapes, improving the usability of the underwater imagery stored in the archive. It will also link the archive to an online portal for web-based viewing.
California Marine Sanctuary Foundation	MPA Outreach and Education Improvement Project Phase 2	$195,573	This project will build off of a previous OPC investment by replenishing and distributing MPA outreach materials, increasing angler awareness of MPA regulations, equipping tourist and interpretive centers with relevant resources, and creating content for a subset of MPA webpages intended for public use.
Strategic Earth	Red Abalone Management Strategies Integration	$79,081	This project will support a collaborative process with the red abalone fishing community and interested stakeholders to provide guidance on the integration of two red abalone proposed management strategies, including a discussion of a managed or restricted access fishery option.

UPDATES BY STRATEGIC PLAN AREA

Science-based Decision Making • Climate Change • Sustainable Fisheries and Marine Ecosystems • Coastal and Ocean Impacts from Land-Based Sources • Existing and Emerging Ocean Uses

SCIENCE-BASED DESCISION MAKING

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

CLIMATE CHANGE

International Alliance to Combat Ocean Acidification

The International Alliance to Combat Ocean Acidification (also called the Ocean Acidification Alliance, or "OA Alliance") was founded in 2016 as a result of the strong partnerships developed across the West Coast to address ocean acidification, and the recognition that the challenges associated with this threat needed to be addressed at the local, state, regional, and international levels. California is a founding member of the OA Alliance. The OA Alliance has grown considerably since that modest start, and now has over 70 members from around the world. OPC serves as California's representative on the OA Alliance Executive Committee; other members include New Zealand, Chile, France, Fiji, Secretariat of the Pacific Regional Environment Program (SPREP), Northwest Indian Fisheries Commission, State of New York, City of Vancouver, Washington, Oregon and British Columbia.

The OA Alliance has contributed to and participated in numerous high-level international events, including COP24, Our Ocean, and the Global Climate Action Summit. At each of these venues, the OA Alliance hosted formal side events and made further commitments to address ocean acidification. This year, the OA Alliance will be holding a "Coast to Coast" OA Alliance Members Meeting in New York during Climate Week on September 26 and 27, 2019. This meeting will bring states together to share lessons learned and best practices arising out of the development of state OA Action Plans.

California's Ocean Acidification Action Plan

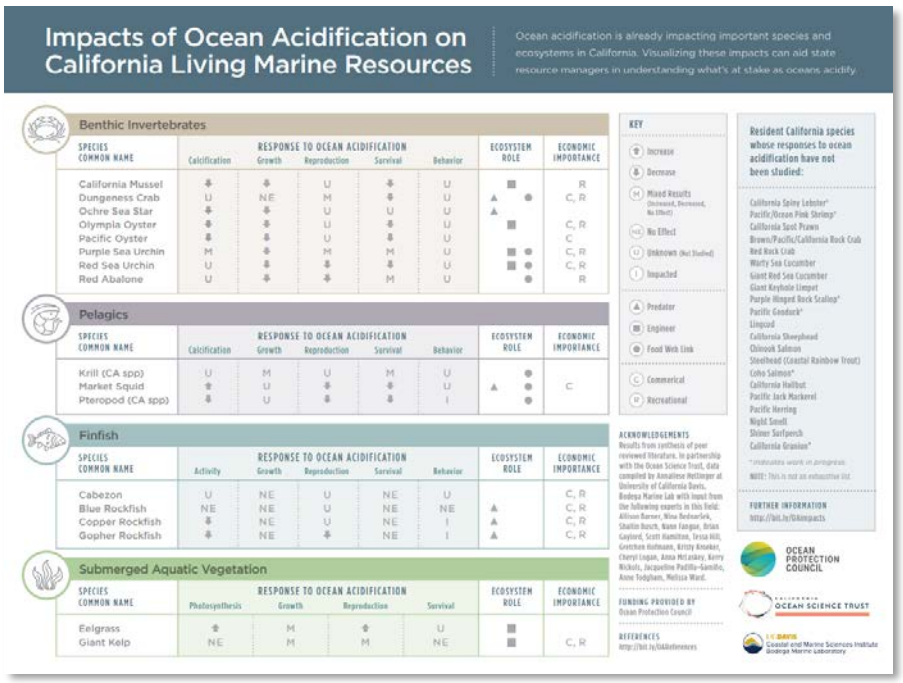
OPC, with support from OST, developed California's Ocean Acidification Action Plan (Action Plan) as part of California's commitment when it joined the OA Alliance. This Action Plan was adopted at the October 2018 Council meeting and staff are currently in the implementation phase. Over the past several months, OPC has held several meetings to discuss priority actions and next steps for Action Plan implementation.

Vulnerability of Marine Species to Ocean Acidification

OPC, in partnership with OST, developed the "Impacts of Ocean Acidification on California Living Marine Resources" infographic which illustrates a summary of the latest research on ocean acidification to important species and ecosystems in the state. This infographic is key to understanding the potential impacts of ocean acidification on marine species in California that are commercially, recreationally, and/or ecologically important.

In addition to this infographic, OPC worked with UC Davis and OST to write an accompanying scientific publication, "Visualizing Ocean Acidification Impacts on California Fisheries Species: A

Decision Support Tool," (currently under review for publication) to help share in more detail what we know about valuable ocean species that may be most vulnerable to OA, as well as identifying critical knowledge gaps where the potential effects of OA are still largely unknown. Visualizing these impacts can aid state resource managers in understanding what is at stake and where to act first as the oceans acidify. While there is still much to learn, this synthesis is a critical first step in helping the state ensure resilient California ecosystems.



"Impacts of Ocean Acidification on California Living Marine Resources" infographic created by OPC and California Ocean Science Trust.

Ocean Acidification and Hypoxia Science Task Force

In 2017, OPC created the Ocean Acidification and Hypoxia Science Task Force (Task Force), which is convened and managed by OST. The Task Force is charged with providing scientific advice to ensure that decision making related to ocean acidification and hypoxia continues to be supported by best available science. The During its first term, from January through December 2018, the Task Force developed a science roadmap to support implementation of California's Ocean Acidification Action Plan, participated in a public webinar series to engage decision-makers in ongoing research and monitoring efforts, and provided science advice to OPC to guide current and future state investments.

OPC has extended the Task Force term through 2021. During this new term, the Task Force will focus on: 1) advancing science in support of OPC priorities related to OAH; 2) expanding scientific expertise available to OPC; and 3) tracking and maximizing utility of new and existing state-funded ocean acidification and hypoxia science investments. Additionally, in response to AB 2139 ("adopt recommendations for further actions that may be taken to address ocean acidification and hypoxia"), the Task Force will work closely with OPC and OST staff to develop a summary report for the Council and the California State Legislature that highlights current progress and future opportunities to continue to advance ocean science to gain new insights on mitigation and adaptation options for California and other jurisdictions.

Pacific Coast Collaborative Ocean Acidification and Hypoxia Working Group

OPC represents California on the Pacific Coast Collaborative (PCC) Ocean Acidification and Hypoxia (OAH) Working Group. The PCC includes the jurisdictions of British Columbia, Washington, Oregon, and California, who have agreed to work together as a region on energy, climate and ocean acidification issues, including calling for more investment in scientific research and monitoring as

a region. The PCC convened the Joint Ocean Acidification and Hypoxia (OAH) Monitoring Task Force in 2016, in partnership with the federal Interagency Working Group on Ocean Acidification (IWG-OA). The purpose of this Task Force was to inventory the OAH monitoring infrastructure along the North American Pacific Coast and provide easy public access to the information.

The inventory has been completed and incorporated into a user-friendly geospatial map which contains records from over 125 participants describing over 200 projects from Alaska to Baja California. The monitoring efforts included in the inventory are capturing trends in OAH occurring across the region and helping scientists and decision-makers better understand and respond to potential impacts to key species and ecosystems. The inventory has already been instrumental in informing management and decision-making processes.

The ultimate goal of the OAH monitoring inventory is to rigorously document trends in key climate and ocean acidification metrics, and to empower managers to implement adaptation and mitigation strategies. On behalf of California, OPC is working with the OAH Science Task Force to take the next step in moving the inventory forward by conducting a full gaps analysis/needs assessment for California.


California's Ocean-Climate Contribution

Advancing the global climate effort through subnational ocean-climate leadership

In 2015, nearly 200 countries came together to adopt the Paris Agreement. Parties to this historic accord committed to take steps both to limit warming to well under two degrees Celsius above pre-industrial levels and to increase resilience to the impacts of climate change. National climate goals are at the heart of the agreement and are critical to achieving its objectives. Every five years, countries submit their goals—called "Nationally Determined Contributions," or NDCs—which are to be increasingly ambitious over time. The agreement also encourages countries to submit and update "adaptation communications" that articulate their priorities, needs, and strategies for guarding against climate impacts. To support the Paris Agreement, California is sharing its "ocean-climate contribution" at COP24.

California's Ocean-Climate Contribution shared at COP24 in Poland, 2018.

International Ocean-Climate Leadership

California recognizes the critical role the ocean plays in moderating the earth's climate, as well as the catastrophic consequences of climate change on the health of the ocean and coastal communities. California has demonstrated strong leadership on this topic in a variety of international forums. Most recently, California participated in the 24th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP24) in Katowice, Poland in December of 2018, where California announced its California's Ocean-Climate Contribution, which asserts ocean-specific actions the state is taking both to increase resilience to climate change and to mitigate anthropogenic greenhouse gas emissions. This contribution builds off of the Ocean-Climate Action Agenda, which California announced at the Global Climate Action Summit, where for the first time global leaders from all sectors of society recognized that oceans can and must be part of the solution to combatting climate change.

Together, the Ocean-Climate Action Agenda and California's Ocean-Climate Contribution lay out a clear framework for subnational and national leaders to integrate oceans into the climate conversation. Actions like protecting submerged aquatic vegetation and other important ocean habitat, creating and supporting effective marine protected areas, and readying fisheries for climate change can add significantly to a government's overall mitigation and adaptation efforts to address climate change. This approach marks a sea change because it not only recognizes the ocean as an integral player in the global effort to meet the goals of the Paris Agreement, but it also recognizes the importance of subnational leadership in meeting these goals. Subnationally

determined contributions, like California's Ocean-Climate Contribution, can help inform a country's adaptation communications and increase their mitigation ambition through enhanced NDCs and supplementary climate goals. They could also help governments identify gaps in their ocean-climate actions and prioritize future research, initiatives, and policies.

Now, looking to COP25, scheduled for Chile in December of 2019 (blue COP), and the UN Ocean Conference in June of 2020, it is important, now more than ever, to encourage other national and subnational leaders to create and communicate their own ocean-climate contributions. Such contributions will demonstrate the importance and feasibility of integrating ocean and climate action—and they will inspire action around the world. OPC has already started working with our NGO, agency, and other partners, to start planning for California's engagement at COP25.

Sea-level Rise
In March 2018, OPC released an update to the State of California Sea-Level Rise Guidance (SLR Guidance). In addition to providing a decision framework for selecting sea-level rise projections that could be used in planning decisions, the document encourages the use of adaptation pathways as an emerging approach to adaptation planning. The adaptation pathways approach uses observable events (e.g. incidence of flooding, erosion, etc.) as triggers for adaptation management responses. While the SLR Guidance has been very well received, a lack of understanding still exists as to what adaptation pathways look like in practice and the process for their development. As an initial step towards resolving this challenge, OPC, with the help of OST, is planning an adaptation pathways workshop that will bring together State agency staff, adaptation pathways experts, and local stakeholders in late summer 2019.

OPC is continuing to take a leadership role in addressing the threat of sea-level rise. OPC staff is coordinating with state agencies and leading meetings of the Sea-Level Rise Leadership Team (which includes leadership and program staff from OPC, Coastal Commission, San Francisco Bay Conservation and Development Commission, State Coastal Conservancy, State Parks, State Lands Commission, Governor's Office of Planning and Research, and the Delta Stewardship Council). The Leadership Team met in February to further discuss communication and implementation strategies around sea-level rise adaptation planning. Next steps for this work are underway as OPC works to develop a communication strategy and is organizing a Risk Communication training for Leadership Team members in August 2019, to be facilitated by NOAA's Office for Coastal Management staff. In addition, OPC staff has been working with the Governor's Office of Planning and Research's Integrated Climate Adaptation and Resiliency Program on updates to the Adaptation Clearinghouse website to ensure that it will include relevant sea-level rise adaptation tools and resources.

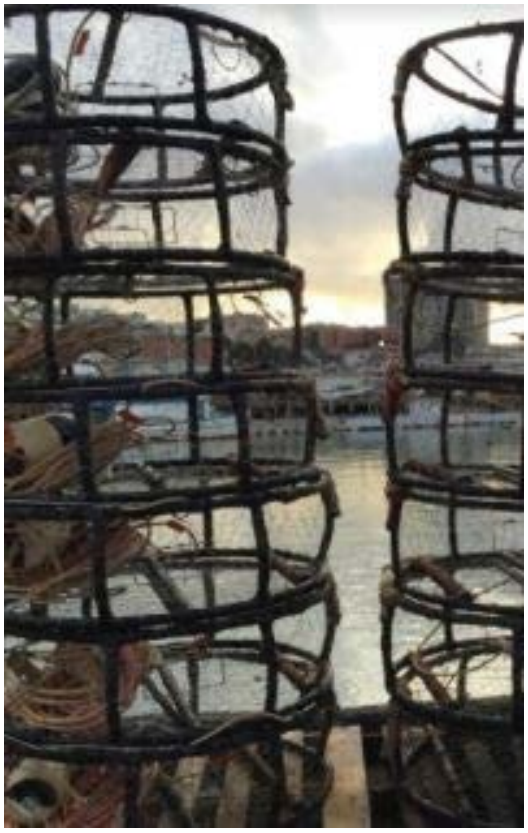
Coastal Sediment Management
OPC is continuing to take a leadership role in promoting coastal sediment management by leading meetings of the California Coastal Sediment Management Workgroup. The workgroup is co-chaired by the U.S. Army Corps of Engineers (Army Corps). Workgroup members include leadership and program staff from OPC, Coastal Commission, San Francisco Bay Conservation and Development Commission, State Coastal Conservancy, State Parks, State Lands Commission, U.S. Environmental Protection Agency, Bureau of Ocean Energy Management, and U.S. Geological Survey. The current focus of the workgroup is implementation of a state Sediment Master Plan (Master Plan) which was completed in early 2018. Development of the Master Plan was funded under a 50/50 cost-share agreement between the state and the Army Corps. The Master Plan is not a single document but rather a body of work comprised of many elements including but not

limited to: 15 Coastal Regional Sediment Management Plans, four Programmatic Environmental Impact Reports, and a Biological Impacts Analyses and a companion Resource Protection Guidelines. University of Southern California, Sea Grant staff will assist OPC staff with facilitating a workgroup discussion around Master Plan implementation priorities on May 30, 2019.

SUSTAINABLE FISHERIES

California Dungeness Crab Fishing Gear Working Group

Background. The California Dungeness Crab Fishing Gear Working Group (Working Group) supports thriving whale and sea turtle populations and a thriving and profitable Dungeness crab fishery by reducing the risk of entanglement in Dungeness crab fishing gear. The Working Group, which was convened by California Department of Fish and Wildlife in partnership with OPC and the National Marine Fisheries Service, includes commercial and recreational Dungeness crab fishermen, environmental organization representatives, members of the disentanglement network, and state and federal agencies. OPC has worked closely with the Working Group to implement priority projects, and has successfully leveraged additional funding in partnership with the Nature Conservancy.



The California Dungeness Crab Fishing Gear Working Group supports thriving whale and sea turtle populations and a thriving and profitable Dungeness crab fishery.

Risk Assessment and Mitigation Program. The Working Group developed a Risk Assessment and Mitigation Program (RAMP) to assess circumstances where entanglement risk may be elevated and, as needed, identify potential management measures for the CDFW Director's consideration. The RAMP includes four priority factors—forage/ocean conditions, whale concentrations, fishing dynamics, and number of entanglements. The Working Group piloted a draft RAMP during the 2017-2018 Dungeness crab fishing season in California to support the state in working with experts—agencies, fishermen, researchers, representatives from environmental organizations, and others—to identify and assess elevated levels of entanglement risk, explore information needs, and determine the need for management options that could be recommended to CDFW. The Working Group continued to utilize and refine the RAMP during the beginning of the 2018-2019 Dungeness crab fishing season.

Entanglement Litigation. On November, 26, 2018, CDFW announced its intent to apply for an incidental take permit under Section 10 of the federal Endangered Species Act to address protected species interactions in certain California state-managed fixed gear fisheries. On March 26, 2019, CDFW announced the settlement of a lawsuit brought by the Center for Biological Diversity against CDFW and the Pacific Coast Federation of Fishermen's Association (PCCFA) in relation to entanglement of protected species in Dungeness crab fishing gear. On March 28, 2019, the CDFW Director made a preliminary determination of significant entanglement risk. On April 2, 2019, the CDFW Director declared a closure of the Dungeness crab fishery due to significant risk of marine life entanglement, and notified all California commercial Dungeness crab vessel permit

holders. Pursuant to the closure, all commercial Dungeness crab fishermen had to remove their gear and complete their landings before midnight April 15, 2019. A Frequently Asked Questions document developed by CDFW is available here, and more information is available at CDFW's Whale Safe Fisheries webpage.

While the Working Group was not a party to the litigation nor the settlement terms, as noted in the Working Group's March 29, 2019 statement, Working Group members understand they will have a role in advising the state in the evaluation of entanglement risk using the RAMP, which is a core foundational component of the settlement agreement.

Working Group Nominations. In April 2019, the Working Group solicited nominations for commercial Dungeness crab permitholders from Morro Bay/Port San Luis, Santa Cruz, Eureka and Trinidad; California Dungeness crab permitholder residing in Oregon or Washington, and a commercial Dungeness crab processor based in California to serve on the Working Group. Nominations were due on May 15, 2019, and selection is at the discretion of the CDFW Marine Region Manager.

Investments to Reduce the Risk of Entanglement in Fishing Gear. The Working Group's Recommendations Memo from October 2018 includes six recommendations for action by OPC, CDFW, Fish and Game Commission, the Joint Committee on Fisheries and Aquaculture and the Pacific States Marine Fisheries Commission to reduce the risk of whale entanglement. One recommendation suggests OPC direct General Funds (for whale and sea turtle entanglement) for RAMP operations and support, including data gathering, gear innovation, and evaluation. As mentioned in more detail in the "Funding" section of this report, OPC staff is taking these recommendations into strong consideration and has funded a solar logger pilot project in alignment with these recommendations. OPC staff is currently developing an investment plan - in close coordination with CDFW, NMFS and stakeholders - to ensure strategic and impactful deployment of the remaining funds. More information will be posted on OPC's Sustainable Fisheries webpage when available.

Dungeness Crab Task Force

The Dungeness Crab Task Force (DCTF) – which is separate and distinct from the Working Group described above - was created in 2008 to review and evaluate Dungeness crab fishery management measures and provide recommendations to the Joint Committee on Fisheries and Aquaculture, CDFW, and the California Fish and Game Commission. DCTF membership includes seventeen commercial Dungeness crab fishermen across port complexes, as well as seven members representing sport fishing, crab processing, commercial passenger fishing vessel, nongovernmental organization interests. The DCTF also includes non-voting representatives from CDFW and California Sea Grant.

Fish and Game Code Section 8276.4 (as amended by SB 1310 (McGuire, 2018)) identifies OPC as the entity responsible for developing and administering the DCTF. OPC is also responsible for facilitating elections for the DCTF, in coordination with CDFW. Fish and Game Code Section 8276.4 outlines membership and details regarding DCTF representation. OPC and CDFW are currently carrying out DCTF commercial fishing elections. Nominations have been received, and a second mailing with ballots was circulated with ballots due on May 31, 2019. Results of the 2019 DCTF commercial fishing elections will be posted on OPC's website and shared via the DCTF, OPC, and CDFW listservs. OPC will also be sharing details regarding the public solicitation process and timeline for the seven non-commercial fishing members appointed by the Chair of the Ocean

Protection Council on the DCTF webpage and via the OPC listserv when available. Please see the DCTF webpage for more information regarding DCTF elections.

Recreational Red Abalone Management Strategies Integration to inform the Recreational Red Abalone Fishery Management Plan

Red abalone, California's iconic subtidal snails, have long been collected for their meat and beautiful shells. Photo credit: Derek Stein.

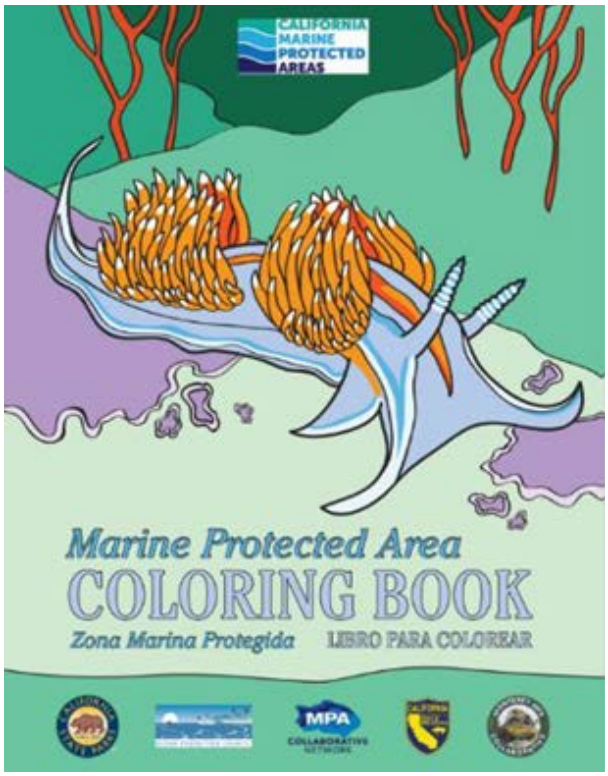
OPC has partnered with CDFW, California Fish and Game Commission, TNC, and representatives from the recreational red abalone fishing community to support integration of proposed recreational red abalone management strategies. In August 2016, OPC funded OST to develop guidance and recommendations regarding the scientific peer review process for Fishery Management Plans and other management documents with a scientific basis. As part of this grant, OST facilitated the peer review process for the red abalone fishery, which included two proposed management strategies. The peer review recommendations were finalized in October 2018 and recommended bolstering the scientific rigor of each proposed strategy, as well as identifying synergies between both strategies to increase the chances of successfully tracking changes in the red abalone population in support of scientifically sound management decisions. In December 2018, the Fish and Game Commission made the following recommendations: 1) address peer review recommendations to integrate the two proposed management strategies; 2) develop a *de minimis* (i.e., managed/restricted access) fishery option; and 3) develop a more comprehensive process and timeline to engage and consult with stakeholders. To accomplish this, a publicly convened group consisting of members of the abalone fishing community, Tribes and tribal communities, scientists, resource managers, and other interested stakeholders will provide feedback and develop recommendations over the next six months to inform the Recreational Red Abalone Fishery Management Plan for the North Coast. The first public meeting was held on Wednesday, May 22, 2019 in Santa Rosa. More details are available on OPC's webpage here, and CDFW's red abalone webpage here.

MARINE PROTECTED AREAS (MPAs)

Outreach & Education

OPC continues to be highly involved in MPA-related outreach and education. In spring 2019, work was completed for three outreach and education grants. The MPA Signs Round II project ($350,000) resulted in the design, fabrication, and installation of 86 interpretive panels and 98 regulatory signs at priority locations along California's coast (e.g. harbors/boat launches and major visitor destinations). As a result, California now has 381 regulatory and 226 interpretive MPA signs statewide. The MPA Collaborative Network Small Grants Program ($299,663) sponsored local projects in 14 MPA collaboratives in California's coastal counties, increasing MPA stewardship in local communities, increasing compliance with MPA regulations among both consumptive and non-consumptive users, and fostering involvement with citizen science MPA research statewide. Finally, the MPA Outreach and Education Improvement Project ($200,000, approved through the

Executive Director's delegated authority) helped to increase awareness and stewardship of California's MPA network by creating a library of MPA outreach products, providing the state with a gap analysis laying out key educational and outreach needs for multiple audiences, and updating or producing new outreach materials for distribution statewide.



A bilingual coloring book created by the Monterey MPA Collaborative as a part of the MPA Collaborative Network's Small Grants Program to increase MPA outreach and education products statewide.

Data

As the state's policy lead for MPAs, OPC works to ensure that MPA management decisions are based on the best available science. OPC is also dedicated to sharing the results of state-funded MPA research with California's ocean stakeholders and the wider California ocean communities. To achieve these goals, OPC staff are leading efforts to improve OPC's data governance and analytics/visualization capabilities. Over the last year, OPC invested $850,000 in an interagency agreement with the Department of Water Resources to fill key data needs. This work was completed in spring 2019 and resulted in the creation of the online ocean monitoring inventory described above in the Pacific Coast Collaborative section, as well as the initiation of an effort to ensure that OPC's data governance policies align with the state's new Open Data Platform (ODP).

The monitoring inventory is a comprehensive snapshot of current climate and biological monitoring projects along the U.S. west coast. It provides user-friendly geospatial/analytic functionality and allows easy identification of monitoring gaps. This inventory is intended for use by researchers involved in ocean monitoring, especially climate scientists, oceanographers, and marine biologists/ecologists. It will also be shared with local, state, and federal decisionmakers, and interested members of the public.

Effective data governance policies and procedures are crucial for all OPC program areas, as OPC is charged with ensuring that state-funded data are collected, analyzed, and stored in a way that enables our partners and interested stakeholders to use data securely, consistently, and accurately. Over the past year, OPC has worked with a consultant and software developer to develop a comprehensive data submission and governance plan that will ensure MPA program data, as well as data from other OPC program areas, aligns with the new functionalities of ODP. This buildout represents a critical first step toward maximizing the capabilities of the ODP and creating a valuable, enduring tool for data access and visualization.

MPA Statewide Leadership Team Tribal Representatives

The MPA Statewide Leadership Team (Leadership Team) is an advisory body that promotes active and engaged communication among entities with significant authority, mandates, or interest related to California's Marine Protected Area (MPA) network. The Leadership Team also informs

regulatory bodies such as the Fish and Game Commission. The members of the Leadership Team recognize the inherent importance of California tribes' traditional and current participation in ocean stewardship, and welcome tribal engagement in MPA management.

In late 2016 and early 2017, through formal meetings and presentations, and informal information gathering, OPC reached out to the Northern and Southern Tribal Chairmen's Association, Intertribal Councils, and other tribal associations throughout the state to develop a process for filling tribal seats on the Leadership Team. Eight Regional Tribal Representative seats were created, with one Primary and one Alternate Representative for each of the following regions: North Coast – California/Oregon border to Mattole River; North Central Coast – Mattole River to Golden Gate Bridge; Central Coast – Golden Gate Bridge to Point Conception; South Coast – Point Conception to US/Mexico border.

Representatives were selected through a 90-day open call and in 2018, the Secretary of Natural Resources appointed the first Regional Tribal Representatives to the Leadership Team. The current Representatives are Ms. Megan Van Pelt (North Regional Tribal Representative; Executive Director of the Resighini Rancheria) and Mr. Reno Keoni Franklin (North Central Regional Tribal Representative; Chairman Emeritus, Kashia Pomo Tribe). In partnership with California's tribes and tribal governments, the Leadership Team is now seeking to fill the vacant South Coast and Central Coast Primary Representative seats, as well as the four vacant Alternate Representative seats. Applications were requested via a public call in January 2019; the deadline was recently extended to ensure sufficient time for prospective tribal representatives to submit applications. Applications were due Friday, May 17, 2019 and will be reviewed by a subcommittee of the Leadership Team that includes tribal representatives from represented agencies. The subcommittee's recommendations will be submitted to the Secretary for Natural Resources in summer 2019.

IUCN Green List Tribal Comment Period on Adapted Indicators
OPC continues to lead the state's effort to add California's globally significant MPA network to the International Union for Conservation of Nature (IUCN) Green List of Protected and Conserved Areas. The Green List program promotes effective, equitable, and successful protected areas worldwide. By evaluating protected areas against a set of globally consistent indicators, the Green List program aims to improve the contribution that these areas make to the conservation of nature and associated social, economic, cultural, and spiritual values.

In 2018, California's MPA network was officially accepted to the Green List program as a candidate site, and IUCN selected members for an expert assessment group (Expert Assessment Group for the Green List, or EAGL) through a public call. The EAGL is a diverse cross-section of California's ocean communities and includes scientists, educators, public stakeholders, consumptive and non-consumptive recreational users, and tribal representatives. Since summer 2018 this group has been regularly working to review and adapt the generic Green List indicators to better reflect the circumstances of California's MPA network. It has determined the need for an initial tribal comment period before the mandated public comment period. As sovereign nations and original ecosystem guardians, the Tribes have cared for, maintained and utilized marine and coastal environments for countless generations in accordance with their traditional lifeways. The Tribes continue to maintain deep cultural connections with these places. Further, both IUCN and the World Commission on Protected Areas recognize the rights and roles of Tribes and Indigenous peoples with regard to the protection and stewardship of nature, and strive to carry out fair and just processes when establishing conserved and protected areas in places that are of value to Tribes and Indigenous communities to help ensure the protection of their inherent rights and ways of life.

Given this context, the adapted indicators were made available to all of California's Tribes on May 15, 2019 and the tribal comment period will close on July 20, 2019.

MARINE POLLUTION

Plastic Pollution Legislative Hearing

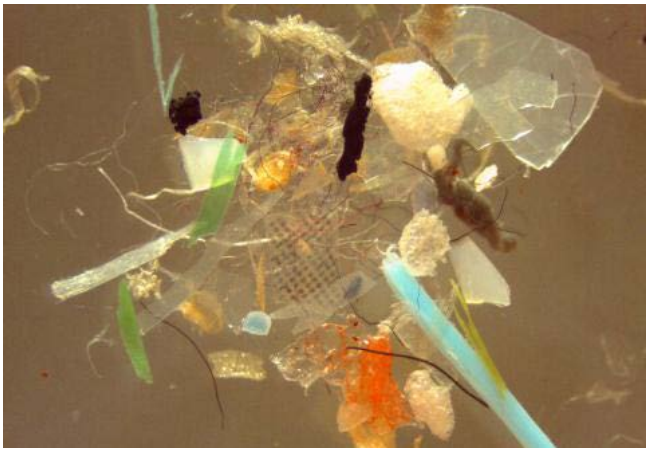
On March 20, 2019 OPC staff presented to a joint hearing of the Senate Committee on Environmental Quality and the Senate Committee on Natural Resources and Water on Clogging California's Ocean with Plastic and OPC's efforts to address plastic pollution through strategic investments, implementation of the California Ocean Litter Strategy, and our upcoming work to increase understanding understanding and address impacts of microplastics, as mandated by SB 1263 (Portantino).

California Ocean Litter Strategy Implementation

OPC adopted the California Ocean Litter Strategy (Strategy) in 2018, which provides direction for OPC's plastic pollution work in the state. OPC is now in the early stages of implementing the Strategy. On June 11, 2019 OPC staff will host a webinar with interested stakeholders to discuss progress toward Strategy implementation and intends to release a solicitation for projects that address plastic pollution in early summer. On May 16, 2019 the West Coast Marine Debris Alliance hosted a webinar to discuss California's Strategy and the Marine Debris Action Plans developed by Oregon and Washington. The purpose of the webinar was to provide examples of how the different plans are being implemented across the West Coast and to share lessons learned.

Microplastic Pollution

OPC staff are involved in several efforts throughout the state to understand and address microplastic pollution. OPC staff participated in the San Francisco Estuary Institute's Microplastics Policy Committee Meeting on March 5, 2019 and presented the state's management needs for microplastics at the Southern California Coastal Water Research Project's Measuring Microplastics Workshop on April 4 and 5, 2019. OPC staff will also participate in the San Francisco Estuary Institute's Regional Monitoring Program Microplastic Work Group Meeting on May 22, 2019.



Microplastics sampled from San Francisco Bay. Photo credit: San Francisco Estuary Insitute.

EXISTING AND EMERGING OCEAN USES

Marine Renewable Energy

At the request of Governor Brown in May 2016, the Director of the federal Bureau Ocean Energy Management (BOEM) established a BOEM-California Task Force to facilitate education, coordination and consultation on leasing and permitting for, as well as the monitoring and evaluation of, renewable energy projects located on the California Outer Continental Shelf (California OCS). OPC staff assisted the Governor's office and BOEM staff in organizing the kick-off meeting for the Task Force, which was held in Sacramento in October 2016.

A second Task Force meeting was held in September 2018. The major outcome of this meeting was BOEM's announcement of draft "Call Areas" for offshore wind leasing on the Central and North Coasts. Basically, "Call Areas" are a preliminary identification of suitable areas for offshore wind development and do not incorporate formal environmental review. On October 19, 2018, BOEM published in the federal register a "Call for Information and Nominations" (Call) which includes three "Call Areas" on the California OCS. The comment period was open for 100 days and closed on January 28, 2019. The California Energy Commission (CEC) and the California Public Utilities Commission, at the direction of the Governor's office, submitted a state comment letter. OPC staff provided technical content and review of the letter.

In response to the Call, BOEM received 116 comments on a wide range of topics and issues and several nominations of interest from offshore wind developers interested in potential leasing in all three Call Areas. These comments can be viewed online here.

Following the first Task Force meeting, OPC staff has spent considerable time assisting CEC and BOEM with outreach to stakeholders (e.g., tribes, fishermen, the public, NGOs, academia) on the North and Central Coasts. In particular, OPC has taken the lead on outreach to commercial fisherman with a current focus on the North Coast. This geographic focus reflects the Redwood Coast Energy Authority's announcement in March 2018 that it had assembled a consortium for the purposes of developing a small-scale wind farm off the Humboldt County coast. On May 3, 2019, OPC staff provided testimony at a Joint Committee on Fisheries and Aquaculture hearing in Eureka. The focus of the hearing was the compatibility of commercial fishing with offshore wind development.

OPC staff continues to convene, on a bi-monthly basis, a state Marine Renewable Energy Work Group to share updates on the BOEM leasing process, to coordinate and discuss research needs relative marine renewable energy impacts on the environment, and to coordinate on the state-federal permitting process for offshore wind development.

Offshore Oil and Gas Development

In mid-March, OPC initiated a tri-state Governors letter in response to a National Ocean and Atmospheric Administration (NOAA) Advance Notice of Proposed Rulemaking (ANPR) that was published in the Federal Register on March 11, 2019. The ANPR seeks the public and regulated community's input on what changes could be made to NOAA's Coastal Zone Management Act federal consistency regulations to streamline the (federal consistency) process across all stages of Outer Continental Shelf oil and gas and renewable energy projects development. The tri-state letter, which was submitted to U.S. Secretary of Commerce Wilbur Ross on April 25, 2019 can be found here: http://www.opc.ca.gov/2019/04/ca-co-authors-opposition-letter-to-proposed-federal-czma-

NOAA's proposed rule-change to the Coastal Zone Management Act could make it easier for the Federal government to permit offshore oil rigs, like this one pictured off of Santa Barbara, with less State oversight. Photo credit: Maria Petueli.

rulemaking/. In the letter, the Governors Newsom, Brown and Inslee opine that this is an apparent effort by the federal government to undermine states' roles in cooperative federalism and in a functioning process under the guise of regulatory streamlining. They also state that any such attempts to weaken states' rights, roles, and processes that put our coasts at risk from expanded oil and gas development.

PERSONNEL NOTES

STAFF

Justine Kimball, *Senior Climate Change Program Manager,* joined the OPC in March 2019. Her work involves leading the climate change program, and focuses on sea-level rise adaptation, coastal resiliency, ocean acidification, and other efforts concerning the impacts of climate change on the ocean. Prior to joining OPC, Justine spent five years in Washington, D.C. at NOAA's Coral Program and as a Knauss Fellow at the Office of the Oceanographer of the Navy. Justine earned her PhD from Stanford University studying deep-sea corals in the Pacific Ocean and her B.A. in Biology with a minor in Geology from the University of California, Santa Barbara.

Adrian Dahood, *Marine Protected Area Senior Scientist/Policy Advisor,* joined OPC in April 2019. Her work involves leading the state's ongoing efforts to manage California's network of marine protected areas. Prior to joining OPC, Adrian spent nine years working on Antarctic environmental science and policy with the National Science Foundation, NOAA, and as a PhD student. She helped to establish and manage Antarctic Specially Protected Areas and Antarctic MPAs. Adrian earned a PhD from George Mason University for which she developed and applied dynamic ecosystem models of the Western Antarctic Peninsula region to evaluate potential MPA boundaries. She earned an M.S. from Texas A&M University studying dusky dolphin occurrence and movement patterns near Kaikoura, New Zealand. She earned a B.S. in Fisheries Science and a
B.S. in Zoology from the University of Washington.